State of Wyoming

Department of Health

Pandemic Influenza Response Plan

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DRAFT Pandemic Influenza Response Plan

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**In development*

I. INTRODUCTION

Pandemic influenza is considered to be a relatively high probability event, yet no one knows when the next pandemic will occur and there may be very little warning. Most experts believe that there will be between one to six months between the identification of a novel influenza virus and the time that widespread outbreaks begin to occur in the United States. Outbreaks are expected to occur simultaneously throughout the country, preventing relocation of human and material resources. The effect of influenza on individual communities will be relatively prolonged, an estimated six to eight weeks. Due to the prolonged nature of a pandemic influenza event, the World Health Organization (WHO) has defined phases to a pandemic in order to facilitate coordinated plans (Table 1). The Wyoming Department of Health (WDH) has developed its own pandemic phases for planning purposes (Table 2).

Table 1: WHO Pandemic Influenza Phases

Period	*Phase*	*Description*
Inter-pandemic	1	No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk[a] of human infection or disease is considered to be low.
	2	No new influenza virus subtypes have been detected in humans However, a circulating animal influenza virus subtype poses a substantial risk[a] of human disease.
Pandemic Alert	3	Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.[b]
	4	Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.[b]
	5	Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).
Pandemic	6	Increased and sustained transmission in general population.[b]

[a] The distinction between *phase 1* and *phase 2* is based on the risk of human infection or disease resulting from circulating strains in animals. The distinction is based on various factors and their relative importance according to current scientific knowledge. Factors may include pathogenicity in animals and humans, occurrence in domesticated animals and livestock or only in wildlife, whether the virus is enzootic or epizootic, geographically localized or widespread, and/or other scientific parameters.

[b] The distinction between *phase 3*, *phase 4* and *phase 5* is based on an assessment of the risk of a pandemic. Various factors and their relative importance according to current scientific knowledge may be considered. Factors may include rate of transmission, geographical location and spread, severity of illness, presence of genes from human strains (if derived from an animal strain), and/or other scientific parameters.

Table 2: Wyoming Pandemic Influenza Phases

Corresponding WHO Period	*WY Phase*	*Description*
Inter-pandemic (1&2)	1	No new influenza virus subtypes have been detected in humans.
Pandemic Alert (3)	2	Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.
Pandemic Alert (4&5) and Pandemic (6)	3	Human to human transmission occurring Limited transmission in other countries or US states (but not in WY) or widespread transmission in other countries.
Pandemic (6)	4	Widespread transmission in US (but not in WY) and/or limited transmission in WY
	5	Increased and sustained transmission in WY population

II. PURPOSE

The purpose of this plan is to provide a guide for the Wyoming Department of Health (WDH) for detecting and responding to an influenza pandemic. This plan must be periodically reviewed and updated to ensure that its assumptions, resources, priorities, and plans are consistent with current knowledge and changing infrastructure. In addition, in the event of a pandemic, the judgments of the public health leadership, based on the epidemiology of the outbreak and the extent of population infection, may alter or override anticipated strategies and plans.

III. FEDERAL RESPONSIBILITIES

The federal government is responsible for nationwide coordination of the pandemic influenza response. Specific areas of responsibility include the following:

- Surveillance in the U.S. and globally
- Epidemiological investigation in the U.S. and globally
- Development and use of diagnostic laboratory tests and reagents
- Development of reference strains and reagents for vaccines
- Vaccine evaluation and licensure
- Determination of populations at highest risk and strategies for vaccination and antiviral use
- Assessment of measures to decrease transmission (such as travel restrictions, isolation, and quarantine)
- Deployment of federally purchased vaccine

- Deployment of antiviral agents in the Strategic National Stockpile
- Evaluation of the efficacy of response measures
- Evaluation of vaccine safety
- Deployment of the Commissioned Corps Readiness Force and Epidemic Intelligence Service officers
- Medical and public health communications

IV. STATE RESPONSIBILITES

States are responsible for coordination of the pandemic influenza response within and between their jurisdictions. Specific areas of responsibility include the following:

- Identification of public and private sector partners needed for effective planning and response.
- Development of key components of pandemic influenza preparedness plan (surveillance, vaccine and antiviral distribution, disease control, and communications) following guidance provided by the Department of Health and Human Services (HHS) in the national Pandemic Influenza Preparedness and Response Plan.
- Integration of pandemic influenza planning with other planning activities conducted under Centers for Disease Control and Prevention's (CDC) Public Health Preparedness and Response and Health Resources and Services Administration's (HRSA) Hospital Preparedness Program cooperative agreements with states.
- Coordination with local areas to ensure development of local plans as called for by the state plan and provide resources, such as templates to assist in planning process.
- Development of data management systems needed to implement components of the plan.
- Assistance to local areas in exercising plans.
- Coordination with adjoining jurisdictions.

V. ASSUMPTIONS

- A novel influenza virus strain will likely emerge in a country other than the United States, but a novel strain could emerge first in the U.S.
- The pandemic may occur during time periods not normally associated with the usual influenza season, and the pandemic strain may attack categories of people at different rates than that which normally occurs during the influenza season.
- There may be as little as one to six months warning before outbreaks begin in the U.S., if the pandemic emerges outside this country.
- Although there may be isolated pockets, the pandemic could affect all areas of the state.

- When the pandemic occurs, vaccines and antiviral medicines will be in short supply and will have to be allocated on a priority basis.
- It will take six to eight months after the novel virus is identified before the vaccine is available for distribution, unless a DNA vaccine is developed and deemed safe and necessary.
- A second dose of vaccine (two to four weeks after the first) may be required to develop immunity to the novel virus.
- In a pandemic, vaccine purchase and distribution options include:
    - public sector purchase and distribution of all pandemic influenza vaccine
    - a mixed public-private system where public sector supply may be targeted to specific priority groups (e.g., health care workers and those providing essential public safety services) and those who may be underserved by the current system
    - maintenance of the current, largely private, system
- The federal government has assumed responsibility for devising a liability program for vaccine manufacturers and persons administering the vaccine.
- Secondary bacterial infections following influenza illness may stress antibiotic supplies.
- Response to the demand for services may require non-standard approaches, including:
    - Discharge of all but critically ill hospital patients
    - Expansion of hospital capacity by using all available space and less than code beds
    - Increase of patient ratio to hospital staff
    - Recruitment of volunteers who can provide custodial services under the general supervision of health and medical workers
    - Relaxation of practitioner licensure requirements as deemed appropriate, and
    - Utilization of general purpose and special needs shelters as temporary health facilities.
- Educating the public about the rationale for priority groups for antivirals and vaccine will be an important aspect of public education.
- There will be widespread circulation of conflicting information, misinformation, and rumors. Communication must be coordinated among all relevant agencies to ensure consistent messages to the general public.

VI. COMMAND, CONTROL, AND MANAGEMENT PROCEDURES

A. Command Structure

The WDH Director (or his/her designee) is responsible for officially activating the Wyoming Pandemic Influenza Response Plan during an influenza pandemic. The WDH Emergency Operations Plan (EOP) describes the WDH National Incident Management System Incident Command System structure that will be implemented in the event of a public health emergency, including an influenza pandemic. In addition, the EOP outlines the procedures for activating and operating the WDH Intervention Resource Center (IRC). The WDH Director will decide when to activate this command system and/or the WDH IRC based on current information and recommendations from the State Health Officer and the State Epidemiologist.

1. Pandemic Influenza Working Group

   WDH has designated a working group to oversee planning, response and mitigation efforts and ensure that this plan is developed, reviewed, and periodically revised. This group will develop this response plan and other materials related to a pandemic influenza response. During a pandemic response, this group will be responsible for developing recommendations and guidelines, particularly for the use of limited vaccine and antiviral supplies. The Working Group may need to be expanded to include other subject matter experts as a pandemic situation develops. Current group members are listed in Appendix A.

2. Pandemic Influenza Advisory Committee

   WDH has designated an Advisory Committee consisting of stakeholders and representatives from WDH and partnering state agencies. A list of committee members is included in Appendix A.

B. Powers of the State Health Officer

1. Quarantine and Isolation

   The WDH, through the State Health Officer, or under his/her direction and supervision, has the power to establish, maintain and enforce isolation and quarantine, and in pursuance thereof, and for such purpose only, to exercise such physical control over property and over the persons of the people within this state as necessary for the protection of the public health (W.S. 35-1-240). Any person who has been quarantined may appeal to the district court at any time for release from the quarantine (W.S. 35-4-112).

2. Closing of Public Buildings and Events

   The State Health Officer has the authority to close theaters, schools and other public places, and to forbid gatherings of people when necessary to protect the public health (W.S. 35-1-240).

3. Mandatory Vaccination

   In most cases, the State Health Officer does not have the authority to subject any person to any vaccination or medical treatment without the consent of that person (W.S. 35-4-113). However, during a public health emergency, the State Health Officer may subject a person to vaccination or medical treatment without consent in the following circumstances:

   - If the parent, legal guardian or other adult person authorized to consent to medical treatment of a minor child cannot be located and consulted and the vaccination of or medical treatment for the minor child is reasonably needed to protect the public health or protect the minor child from disease, death, disability or suffering;
   - If the person authorized to consent on behalf of an incompetent person cannot be located and consulted and the vaccination of or medical treatment for the incompetent person is reasonably needed to protect the public health or protect the incompetent person from disease, death, disability or suffering.
   - If a person withholds or refuses consent for himself, a minor or other incompetent when the vaccination or medical treatment is reasonably needed to protect the health of others from a disease carrying the risk of death or disability, then the person for whom the vaccination or medical treatment is refused may be quarantined by the State Health Officer.

4. Liability

   During a public health emergency any health care provider or other person who in good faith follows the instructions of the State Health Officer is immune from any liability arising from complying with those instructions (W.S. 35-4-114). This immunity does not apply to acts or omissions constituting gross negligence or willful or wanton misconduct.

C. Activities by Wyoming Pandemic Phase

1. Wyoming Pandemic Phases 1 and 2; WHO Inter-pandemic and early Pandemic Alert Periods
   a. WDH has established a Pandemic Influenza Working Group and an Advisory Committee.

b. WDH has developed this response plan as an annex to the department's existing Emergency Operations Plan. This plan will be reviewed and modified at least annually (more often if deemed necessary).
c. WDH Public Health and Terrorism Preparedness Program is continually working to develop and maintain lists of partners, resources, and facilities to be utilized during a public health emergency.
d. WDH will continue to coordinate planning activities with bordering jurisdictions, including counties, states, and unique populations (such as Native American nations).
e. WDH is working with local public health and emergency management agencies to assist with the development of local pandemic plans. WDH has developed and distributed two documents to assist counties in their planning process: Pandemic Influenza Planning Roles (Appendix B) and Pandemic Planning Guidance for Local Public Health and Emergency Management Agencies (Appendix C).
f. In addition, WDH has provided a canned tabletop exercise for counties to use to exercise their local pandemic response plans (Materials available upon request).

2. Wyoming Pandemic Phase 3; Pandemic Alert and early Pandemic Period
   a. Convene the Working Group, the Advisory Committee, and other partners and stakeholders to review plan.
   b. Notify local jurisdictions and encourage them to review their pandemic response plans and current capabilities.
   c. Coordinate with other states and federal agencies and bordering jurisdictions.

3. Wyoming Pandemic Phases 4 and 5; WHO Pandemic Period
   a. Meet with partners and stakeholders as appropriate to review and update the plan.
   b. Notify key government officials and legislators of the need for additional monetary resources and other additional resources as needed.
   c. Coordinate with other states, federal agencies, and bordering jurisdictions.
   d. Monitor staffing and other agency resource needs.
   e. Document expenses related to the pandemic response.

VII. SURVEILLANCE

A. Existing Surveillance System

1. Passive Surveillance of Confirmed Cases

   Laboratory confirmed influenza and influenza-associated deaths are reportable in the state of Wyoming. Reports are received from physicians, hospitals, and laboratories. Both rapid test and culture positives are reported through this system.

2. Influenza-Like Illness Sentinel Reporting System

   Wyoming currently has about 20 healthcare providers participating in the U.S. Influenza Sentinel Surveillance Project coordinated by the CDC. This system consists of two components.

   a. Influenza-Like Illness Reporting: The sentinel sites report influenza-like illness (ILI) morbidity data directly to the CDC via internet or fax on a weekly basis starting in early October. Sentinels are asked to continue to report ILI throughout the year, but participation typically declines as the season progresses. The weekly transmission includes the number of patients seen for ILI during the week in four age categories (0-4 years, 5-24 years, 25-64 years and 65+ years) and the total number of patients seen for any reason during the week.

   b. Submission of Laboratory Samples: The sentinel sites are asked to submit nasal, nasopharyngeal, and/or throat swab specimens from a sample of their patients presenting with ILI to the Wyoming Public Health Laboratory (WPHL) for influenza testing and typing. Both positive and negative results are reported to the WDH Infectious Disease Epidemiology Program (ID Epi). ID Epi reports results to the submitting sentinel provider.

3. Pediatric Deaths

   ID Epi investigates all reports of deaths in patients < 18 years old with evidence of influenza virus infection using CDC-provided materials.

4. Current Laboratory Testing for Influenza

   a. The WPHL currently provides 3 specimen collection kits and instructions to each of the sentinel providers to ensure the proper collection and transport of influenza specimens during the influenza season (October – March). These collections kits are prepackaged and shipped to the sentinel sites at the beginning of the influenza season, and are continually re-supplied to the sentinel provider as they submit specimens throughout the season. Also

provided within each kit is a pre-addressed Federal Express (Fed Ex) label which allows the sentinel site to ship the specimens "postage paid" to the WPHL.

b. In addition to sentinel site surveillance, any primary care physician that suspects avian flu or has presumptively identified a suspect cluster of influenza-like illness (ILI), may make a request through ID Epi to submit influenza specimens. If sufficient justification exists, ID Epi will contact the WPHL and collection kits will be sent to the provider for controlled collection and shipment of specimens to the laboratory for testing.

c. Currently, specimens are received, accessioned, inoculated onto cell culture, incubated for 2-3 days, and if cytopathic effect is evident, a DFA (Direct fluorescent antibody test by microscopy) is performed to determine if the virus is influenza type A or type B. Cell culture is the laboratory method necessary to isolate viable virus to both confirm live virus in the clinical sample and to provide further strain characterization. If the specimen is negative, no further workup is necessary. If the specimen is type B, WPHL reports the results to ID Epi and conducts no further testing. If the specimen is Type A, an IFA (Indirect fluorescent antibody test by microscopy) will be performed using WHO reagents to determine if the virus is H3 or H1, the current circulating strains. If a sample is identified as influenza A but cannot be subtyped as H1 or H3 by rRT-PCR, an immediate investigation would ensue with the support of CDC to determine the possibility of infection by a new subtype of influenza.

d. Laboratory biosafety procedures
   i. Laboratory staff involved in accessioning, processing and analysis of potential influenza virus samples will be monitored for presentation of ILI during the period of the influenza season when positive samples are being submitted. All laboratory staff in the microbiology section have been offered the current vaccine.
   ii. Laboratories staff involved in cell culture and molecular analysis will insure that enhanced biosafety level 2 procedures are followed for all sample processing including manipulation of samples with potential live virus in a BSC, use of gloves, lab coats and masks (when appropriate), processing of samples with no other staff in the immediate lab area and disinfection of the processing area following each procedure.

e. Currently the ELC influenza laboratory staff includes the ELC molecular virologist/WNV microbiologist and two laboratory scientists assigned part-time duties for cell culture processing, analysis and fluorescent microscopy confirmation. In advanced phases, if the workload volume increases beyond the current staffing capacity, the bioterrorism preparedness laboratory staff will serve as a surge capacity laboratory for additional manpower.

5. Deaths from Influenza and Pneumonia

   The Vital Statistics program of the WDH reports the total number of deaths processed each week as well as the number of those deaths attributable to pneumonia and influenza to ID Epi.

B. Activities by Wyoming Pandemic Phase

1. Wyoming Phase 1; WHO Inter-pandemic Period

   In the preparation for an influenza pandemic, routine surveillance systems should be expanded where feasible. Activities to be considered include:

   a. Maintain the routine sentinel physician network and attempt to expand to at least one physician or clinic for each county.
   b. WPHL has implemented Real-Time Reverse Transcriptase Polymerase Chain Reaction (rRT-PCR) for preliminary detection of influenza virus strains in clinical specimens. rRT-PCR is performed on the original patient specimen. Turn around time can be within 24 hours as compared to a number of days for the culture method. rRT-PCR can identify the virus type as either type A or B, and subtype as H1, H3, the currently circulating subtypes, and H5 the avian strain.
   c. Institute an aberration detection system (syndromic surveillance) that monitors daily patient load at selected urgent care facilities to detect variation in emergency outpatient visits that would then be investigated to determine a cause, which could be influenza. The Infectious Disease Epidemiology Program is currently working on implementation of syndromic surveillance system.
   d. Emphasize reporting of outbreaks in nursing homes and other institutional settings and provide epidemiologic support for investigation activities, including laboratory support to identify causes.

2. Wyoming Phase 2; WHO Pandemic Alert Period; Human infection with novel virus identified, but no sustained human-to-human transmission

   a. Monitor CDC weekly influenza updates regarding clinical, epidemiological, and virologic characteristics of the novel strain.
   b. Provide updates to public and private health care providers, including, but not limited to county health officers, public health nurses, infection control practitioners, sentinel providers, hospitals, clinics, and private physician offices, through the Infectious Disease

Epidemiology Program website, Epidemiology Alerts, Epidemiology Bulletins, and telephone and video conferences as needed.

c. WPHL will obtain reagents from CDC to detect and identify the novel strain, when available.

d. Request that sentinel providers collect specimens from patients presenting with ILI, especially those with a recent travel history to a region where the novel strain is circulating or persons with unusual/severe symptoms.

e. Other providers will be informed that any testing for novel influenza will be conducted only following consultation with ID Epi staff due to the limited capacity of the WPHL. If WDH and the provider agree that testing for the novel strain is indicated, ID Epi will coordinate the proper submission of specimens to the WPHL.

f. WDH will request that all providers collect specimens from patients meeting the following criteria:

    i. Hospitalized patients with severe ILI, including pneumonia, who meet the epidemiologic criteria for exposure risk (see iii), *or*

    ii. Non-hospitalized patients with ILI and with strong epidemiologic suspicion of novel influenza virus exposure (see iii).

    iii. Epidemiologic criteria for risk exposure:

        a. Persons who recently visited or lived in an area affected by highly pathogenic novel influenza A outbreaks in animals (e.g. domestic poultry) or where a human case of novel influenza has been confirmed, *and either*

            i. had direct contact with affected animals, or

            ii. had close contact with a person with confirmed or suspected novel influenza.

        b. Persons at occupational risk for infection with a novel strain of influenza (e.g. persons who work on farms or live poultry markets or who process or handle poultry infected with known or suspected avian influenza viruses, workers in laboratories that contain live animal or novel influenza viruses), and healthcare workers in direct contact with a suspected or confirmed novel influenza case.

g. Laboratory algorithm: For cases with a strong epidemiologic suspicion of novel influenza virus exposure, WPHL will screen samples using rRT-PCR. Cell culture will not be performed until the rRT-PCR result for type A and type B and H1 and H3 typing is completed and potential H5 samples are ruled out. Specimens that are type B will be reported and no further workup is necessary. If a specimen is negative for type A and type

B, no further workup is necessary. Specimens that are positive for type A will be tested with rRT-PCR for H3, H1 and H5. If negative for all three, specimen will be sent to the CDC overnight for further subtyping. Specimens positive for H1, H3 or H5 will immediately be reported to ID Epi via fax. Those positive for H1 and H3 will subsequently be set up on culture, while those positive for H5 will be sent to CDC. Any isolate may be sent to the CDC for further strain identification.

h. As usual, if at any phase of subtyping, WPHL tests indicate that an influenza virus isolate may be a strain other than those currently circulating; the WPHL will immediately notify CDC for assistance.
i. ID Epi will call the CDC Emergency Response Hotline (770-488-7100) to report a suspected case of infection with a novel influenza virus.
j. ID Epi will conduct follow-up on all cases and complete a CDC case screening and report form (Appendix D) and fax the completed form to CDC at 888-232-1322.
k. Develop surveillance system for severe respiratory illnesses through active surveillance of infection control practitioners. Develop a reporting form to be completed daily by infection control. Activate this system if/when novel strain is identified in the US.

3. Wyoming Phase 3; WHO Pandemic Alert and early Pandemic Periods; Human-to-human transmission occurring; Limited transmission in other countries or US states (not WY); or widespread transmission in other countries. May include sporadic cases in WY.
   a. Expand the number of sentinel providers and possibly expand amount of testing each sentinel provider is conducting. Possibly expand testing to also include private clinics, hospitals, private practices, institutions, and other healthcare facilities, as for phase IV.
   b. WPHL and ID Epi will coordinate to identify those facilities needing collection kits.
   c. Continue to request that all providers submit specimens for those persons meeting the epidemiologic criteria described in 2.f.
   d. Laboratory algorithm: Same as previous phase, with possible expansion to include all patients with healthcare provider clinical diagnosis of influenza.
   e. ID Epi will assess functionality, timeliness, and completeness of reporting, data entry, and data dissemination, and will make improvements where warranted.
   f. Assess the need to screen travelers arriving in the state from affected countries or states.
   g. ID Epi will investigate outbreaks and increases in ILI, including those detected through the sentinel provider surveillance system.

h. CDC will provide guidelines to assist with triage of specimens for testing and selecting which isolates to forward to CDC for further testing.
i. Once vaccine is available, conduct surveillance for adverse events from the vaccine using the CDC's Vaccine Adverse Events Reporting System (VAERS).

4. Wyoming Phase 4; WHO Pandemic Period; Widespread transmission in US states (but not in WY) and/or limited human-to-human transmission in WY
   a. As resources allow, accept specimens for all patients with a healthcare provider clinical diagnosis of influenza, particularly those with a positive rapid test.
   b. Contingent upon adequate funding, pre-addressed Fed Ex shipping labels will continue to be provided to sentinel sites, and may, at the discretion of WPHL, be supplied to other primary care facilities. WDH has established a courier system that provides daily pickup and delivery to 20 hospital locations throughout the state, with will-call pickup in an additional two locations. This courier system will become the secondary transportation route in the case of a pandemic. The courier provides pickups Monday through Friday. Locations of the courier sites and pick up times could be broadcast faxed to primary care facilities, providing overnight delivery of specimens to the laboratory.
   c. The WDH may prioritize testing of samples as resources allow. Such prioritization may be based on rapid influenza test results or severity of illness.
   d. Laboratory algorithm: Once the first case of a novel strain is detected in WY, specimens will be tested initially by rRT-PCR for that H subtype, and specimens that are positive for that subtype will be immediately sent to the CDC until we are instructed to send no further specimens. As high volumes of specimens are encountered, the WPHL will work with ID Epi to determine a schematic for prioritization of testing. Specimens that are negative for the novel subtype will be tested by rRT-PCR for A and B, and will follow the algorithm established as indicated above.
   e. Consider a hospital beds-filled and beds-available surveillance system to locate and monitor available inpatient health care space by enrolling selected hospitals to monitor daily or weekly capacity.
   f. Coordinate receipt of selected autopsy specimens for submission for testing.
   g. Regularly provide materials to surveillance sources to convince them that their contributions are still essential because of the likelihood of a second and possible third wave of illness.

5. Wyoming Phase 5; WHO Pandemic Phase; Widespread human-to-human transmission in WY.
   a. Once a novel strain becomes established in a given Wyoming community (as determined by ID Epi), WDH will no longer recommend that all healthcare providers from that community submit specimens on all patients with a clinical diagnosis of influenza.
   b. WDH will return to a sentinel-based surveillance system in which only sentinel providers may continue to submit samples for trend monitoring. At this point, test results will not likely be clinically relevant and will only be used to monitor the epidemiology of the outbreak.
   c. WPHL will accept specimens from non-sentinels if determined to be clinically important for care.

VIII. INFLUENZA DISEASE CONTROL AND PREVENTION

A. Isolation, Quarantine, and Community Containment Activities

Containment measures (isolation and quarantine) may have limited impact in the prevention of transmission of pandemic influenza due to the short incubation period of the illness, the ability of persons with asymptomatic infection to transmit the virus, and the non-specific nature of clinical illness from influenza. Nonetheless, during the early stages of a pandemic, particularly if the novel virus is not efficiently transmitted, use of isolation and quarantine may slow disease spread and allow time for targeted use of medical interventions. In general, when isolation and/or quarantine is ordered by public health officials for specific individuals or groups, it is the responsibility of local public health officials to ensure that the subject has access to and is provided essential supplies and services.

1. Wyoming Phases 1 and 2; WHO Inter-pandemic and early Pandemic Alert Period; No WY cases identified.
   a. ID Epi and the Public Health and Terrorism Preparedness program will work with local government agencies to develop plans for mass isolation and quarantine which may be indicated in particular circumstances during a pandemic response.

2. Wyoming Phase 3 and 4; WHO Pandemic Alert and Pandemic Periods; Includes sporadic epi-linked cases in WY and limited human-to-human transmission in WY

a. Confirmed or suspected influenza cases (including those with negative tests, but with a strong epidemiologic suspicion and no alternate diagnosis) should be placed in isolation.
   i. Isolation may be at home, or if medically necessary, in a hospital for a period of time to be determined based on current epidemiology; or until the infection is laboratory-confirmed not to be caused by a novel influenza A virus.
   ii. Those isolated at home will be given a letter detailing instructions for home isolation (Appendix E).
   iii. Treatment for isolated cases using neuraminidase inhibitors is most effective if given within 48 hours of symptom onset. Antiviral treatment should be initiated as soon as possible even if laboratory results are not yet available.
   iv. Alternative isolation plans for individuals in nursing homes, dormitories, etc. will be dealt with on a case-by-case basis by local authorities.
   v. In the event of travel related isolation and quarantine (e.g. buses, planes), appropriate facilities as outlined in the WDH Smallpox Response Plan will be utilized. Local government agencies will be primarily responsible for providing all necessities associated with isolation and quarantine of travelers (e.g. food, clothing, medical care).
b. Quarantine close contacts of cases (and their contacts, if warranted). Close contacts shall be defined as those who have shared a defined setting (households, extended family, hospital, other residential institution, or military service) with a patient with proven or suspected novel influenza A infection.
   i. Quarantine of contacts may be at home for a period of time to be determined based on current epidemiology of the virus under the direction of the State Health Officer or designee, but may be up to 10 days or longer.
   ii. Those quarantined at home will be given a letter detailing instructions for home quarantine (Appendix F). Alternative quarantine plans for individuals in nursing homes, dormitories, etc. will be dealt with on a case-by-case basis by local authorities.
c. Prophylaxis of close contacts shall be under the direction of the State Health Officer or County Health Officer. Post-exposure prophylaxis might be useful in attempts to control small, well-defined disease clusters.
d. A local public health nurse, or WDH employee, will monitor those in home isolation/quarantine on a daily basis.
e. At the direction of the State Health Officer or designee, discourage or cancel large gatherings in the affected town/county and encourage those with respiratory illness to stay home from work, school, etc., depending on the level of person-to-person transmission.

3. Wyoming Phase 5; WHO Pandemic Phase; Widespread human-to-human transmission in WY.
   a. At this stage of the pandemic, public health-directed isolation and quarantine of specific individuals may have little effect; therefore control efforts should focus on community-wide containment measures.
   b. At the direction of the State Health Officer or designee, discourage or cancel large gatherings in the affected town/county, or order that non-essential personnel not go out in public, depending on the level of person-to-person transmission.
   c. WDH will encourage those with respiratory illness to stay home from work, school, etc. In this stage of a pandemic, home quarantine of all asymptomatic household contacts of those ill with a flu-like illness is likely impractical and could result in significant disruption of essential community services. It is possible, however, that WDH officials could recommend such home quarantine in special circumstances, which would consist of staying home from work or school for a time period to be determined by the WDH (equal to an incubation period from the date of last contact with an infectious person).

B. Infection Control

WDH has previously developed basic influenza infection control guidelines for the public and for schools, which are available on the WDH website. In addition, WDH can promote CDC-developed influenza transmission prevention strategies (Table 3). For more information on infection control in healthcare facilities, reference Appendix L.

Table 3: Influenza Transmission Prevention Strategies*

	Healthcare Setting	Community
Decrease potential for contact	• Private rooms or cohorting with other influenza patients • Negative pressure room when performing high-risk aerosol-generating procedures, if feasible • Designate specific wards or hospitals for admission of patients • Minimize transportation of patients • Limit number of healthcare workers caring for influenza patients • Limit number of visitors to influenza patients • Environmental decontamination for influenza following existing guidelines	• Provide advisories or limit travel to areas where a novel influenza strain is circulating • Cancel large group gatherings • Close schools and/or businesses • Encourage telecommuting • Limit availability of public transportation • Avoid unnecessary hospital visits • Discourage hand shaking • Quarantine of contacts of cases early in the pandemic • Stay home if ill with influenza like symptoms
Decrease potential	• Vaccination of healthcare workers	• Hand hygiene

for infection if contact occurs	• Antiviral chemoprophylaxis for healthcare workers • Strict hand hygiene • Respiratory/cough etiquette • Standard and droplet precautions including use of gowns, gloves, and masks by healthcare workers and visitors to influenza patients, plus use of N-95 respirators by healthcare workers with direct patient contact if possible (see Appendix L)	• Respiratory/cough etiquette • Vaccination or antiviral treatment or chemoprophylaxis per priority groups, if available

From: Draft Pandemic Influenza Preparedness and Response Plan, Department of Health and Human Services, Annex 8: Strategies to Limit Transmission, August 2004.

At this time neither the WDH nor the federal pandemic flu plan recommends that mask use by the general public as a protective measure be a priority. The federal pandemic flu plan states, *"The benefit of wearing masks by well persons in public settings has not been established and is not recommended as a public health control measure at this time." (Supplement 8, Federal Pandemic Flu Plan).*

Nevertheless, some people may make the individual choice to wear a mask as part of individual protection strategies that include cough etiquette, hand hygiene, and avoiding public gatherings. Mask use may have the most benefit for persons who are at high risk for complications of influenza and those who are unable to avoid close contact with others or must travel for essential reasons such as seeking medical care. Local public health officials, healthcare facilities, or other entities may identify select persons who are at high risk of acquiring influenza based on their exposure to ill persons and consideration of routine mask use by such persons could be considered.

Mask use is not a substitute for social distancing or other personal protection measures. For persons who make the individual choice to include mask use in their protection strategies surgical masks are usually available for purchase at pharmacies or medical supply stores. Supply issues should be considered so that mask use in communities does not limit availability for healthcare settings where the importance and effectiveness of this use has been documented.

IX. VACCINE DELIVERY

A. Annual Vaccination Campaign

1. Influenza and Pneumococcal Vaccine Distribution

   The Wyoming Immunization Program (WIP) in the Community & Family Health Division (CFHD) of WDH is responsible for bulk ordering vaccine from manufacturers, and receipt, storage, handling, packing, shipping, and disposal of all publicly purchased vaccines in Wyoming. Vaccines are ordered and stored centrally at the vaccine storage room, packaged and transported by Fed Ex and/or United Parcel Service (UPS) to providers in Wyoming.

   The vaccine depot in Wyoming is located at WDH in Cheyenne. No influenza vaccine is currently kept in the WDH depot. Currently, all vaccine storage units reside in a room that is kept locked after hours. All refrigerators that contain vaccine are equipped with locks. Temperatures are monitored twice daily. All vaccine storage units at local Public Health Nursing (PHN) offices are either equipped with locks or kept in a locked room.

   Standard operating procedures to safeguard vaccines during power outages include the availability of backup generators for the power refrigerators in the event of a power outage. Units located at the WDH vaccine depot have backup power generators, while Vaccine for Children (VFC) providers have backup plans in the event of a power outage or refrigerator malfunction.

B. Vaccine Management During a Pandemic Response

The entire population will be susceptible and may require two doses of vaccine for full protection. This means that the state of Wyoming could potentially use up to 1 million doses. Even if the maximum amount of 1 million doses were to become available, it would most likely arrive in batches over an extended period of time. The amount of vaccine that will have to be managed by the WIP will be affected by the following factors:

- Vaccine availability (the manufacturers' ability to produce and distribute vaccine)
- The proportion of available vaccine that will be purchased and distributed by the public versus the private sector.
- Amount of vaccine available for public purchase through federal contract(s).
- Amount of vaccine available for public purchase through contracts negotiated between the state and manufacturers.

The proportion of influenza vaccine to be distributed and administered through the public versus the private sector is unknown. It is possible that during an emergency, the public sector will be given the responsibility for distribution of all vaccine. Control of vaccine distribution by WIP and PHN will help to ensure equitable distribution to priority groups regardless of income or access to care and will also facilitate distribution of vaccine to essential community servants. All vaccine available to the public sector will be administered during clinics held by local PHN offices, select physician offices or hospital facilities that have been identified by county PHN nursing offices.

1. Ordering

   CDC will notify the WIP how much vaccine will be available for Wyoming through federal contract. Vaccine may also be available through contracts negotiated directly between WIP and vaccine manufacturers. Once the total amount of vaccine available is known, WIP will consult with the State Health Officer and other WDH officials to determine how much vaccine will be distributed to each county. The WIP is not responsible for ordering or distribution of vaccine available to the private sector.

2. Allocation

   The state will likely allocate vaccine to counties on a population-basis. The counties would then administer the vaccine according to CDC target group recommendations as supply allows. The regional PHN representatives will contact the WIP with shipping details (e.g. what facilities are to receive vaccine).

2. Personnel

   In order to process the additional doses of vaccine and the accompanying paperwork, staffing of WDH, in particularly the WIP, may have to be supplemented. Personnel to assist with vaccine management will be obtained through reassignment of WDH staff and/or hiring of temporary staff by the WIP. The need for additional staff will depend upon the amount of vaccine that will be available for distribution through the public sector. With no additional resources, the WIP could manage an estimated 10,000 doses a month.

   Written protocols for vaccine distribution will be developed by WIP to facilitate new or reassigned staff to assist with vaccine distribution functions. During the months between a novel virus alert and the availability of vaccine, other PHSD, CFHD and/or temporary staff will be

given specific assignments related to vaccine management and will be trained for their new duties by the WIP.

2. Vaccine Storage

Once vaccine is available the refrigeration units will be prepped for the arrival of vaccine. It is most likely that WIP will receive relatively small allotments of vaccine as it is manufactured.

a. Current vaccine storage capacity at the WDH vaccine depot is 100,000 doses above the usual amount of vaccine stored on a daily basis. In order to minimize storage problems in the county offices, vaccine will be transported from the WDH vaccine depot to the local PHN offices, select physician offices or hospital facilities that have been identified by PHN offices on a weekly basis. Currently, all vaccine storage units in the WDH vaccine depot reside in a building that is kept locked after hours. All refrigerators that contain vaccine also are equipped with locks. All vaccine storage units at PHN offices should be equipped with locks.

b. It is the responsibility of WDH to review the adequacy of the current security measures at the WDH vaccine depot and PHN offices and to have a plan in place to enhance security, if needed. Should WDH become unable to meet the need for security of vaccine, WDH may request assistance from law enforcement agencies. The WIP would remain responsible for management of vaccine, including coordination of distribution. Enhanced security for vaccine at the local distribution sites will be the responsibility of the local authorities.

4. Transportation of Vaccine to Sites Identified by Counties

Vaccines are currently transported between the WDH vaccine depot and local PHN offices, select physician offices or hospital facilities that have been identified by PHN offices by Fed Ex or UPS. If Federal Express and/or other courier services are not able to deliver vaccine for any reason, WIP will transport vaccine by state automobile. Up to 4000 doses could be transported in the passenger compartment of an automobile at one time. If security during transport of vaccine is a concern, a law enforcement escort could be arranged.

5. Vaccination Clinics

a. Staffing

PHN offices may not have adequate staff to hold large-scale vaccination clinics. Volunteer agencies could be used to help with non-medical services such as data entry/data management, management of supplies, and others. Local agencies should contact private providers in their community to create a list of those willing to assist with vaccination administration in the event of a pandemic or other public health emergency. Additionally, the WDH Public Health and Terrorism Preparedness Program has established a list of licensed nurses who have agreed to offer their services during a public health emergency.

b. Alternate Clinic Sites

PHN offices might not be large enough to accommodate a large immunization clinic. If this is the case, an alternate site should be identified. Any large, open-area building with handicap access and adequate parking would be adequate. Types of facilities recommended for large-scale vaccination clinics include schools, auditoriums, conference halls, and theatres. In many communities, facilities for vaccination clinics have already been identified for smallpox planning purposes (Appendix G). Local agencies may wish to establish Memorandums of Understanding with facilities in advance of a public health emergency.

PHN offices might consider distribution points such as police or fire stations, hospitals, or mobile vans to target specific groups of high priority workers. PHN offices should consider having hospitals administer vaccine to their staff members. If clinic sites other than the health department are deemed necessary or preferable, local law enforcement should be sought as partners to help determine sites that can be secured.

c. Vaccine Accountability

The vaccine may be unlicensed and need to be used under emergency investigational new drug (IND) provisions. Such provisions call for strict inventory control and record keeping. All State provided vaccinations administered during clinics held by local PHN offices, select physician offices or hospital facilities that have been identified by PHN offices will be recorded in the WIP's Immunization Registry (First Responder Mass Clinic Program) or via hand documentation on the WIP State Stock Influenza Doses Administered and Inventory reports (DAR/INV). All PHN offices have access to this registry and have been trained to enter data into this system. All of the data entered into this system can be accessed by WDH staff. All hand documented DAR/INV reports should be submitted on a weekly basis by

faxing to 307-777-3615. Record keeping is also critical in that each individual vaccinated may need to be re-vaccinated 2-4 weeks after the initial vaccination.

For all privately purchased vaccine, private providers administering vaccine will be asked to tally the number of doses administered to each of nine age groups and record the information on the Private Stock Influenza Doses Administered and Inventory reports form (Appendix H; *in development*). These forms will then be returned to WIP, where the information will be entered into a spreadsheet. Information on doses administered can be totaled and sorted on a daily basis.

d. Clinic Supplies

Local public health officials may want to consider establishing a stockpile of non-perishable supplies that would be necessary to run a mass vaccination clinic. These supplies might include syringes, gloves, masks, alcohol wipes, etc.

6. Targeted Recipient Groups

a. Establishing Target Recipient Groups

In view of likely vaccine shortages, HHS, in conjunction with various advisory committees has formulated recommendations for high priority target groups for vaccination (see Appendix I). The order of these groups is based on a number of factors including the need to maintain those elements of community infrastructure that are essential to carrying out the pandemic response plan. Other factors include limiting mortality among high-risk groups, the reduction of morbidity in the general population, and the minimization of social disruption and economic losses. This list is subject to change depending on the epidemiological and clinical features exhibited by the actual pandemic strain and the availability of vaccine.

The Working Group will distribute the federal Priority Groups List to all healthcare providers that might administer vaccine. This list is to be used as guidelines for healthcare providers. However, the decision of who should and should not be vaccinated will be left to the discretion of the healthcare providers administering vaccine.

b. Estimates of and Plans to Vaccinate Priority Group Members

WDH will work with PHN offices and local emergency management agencies to estimate how many persons fall into each of the established priority groups to help with planning efforts locally. PHN offices, in collaboration with their partners, will need to develop plans for vaccinating persons who fall into the priority groups.

c. Education Regarding the Priority Groups List

Special attention must be paid to educating the general public about the Priority Groups List for receipt of vaccine, including the rationale for the list, the process by which the decisions were made, and what other control measures people can take until vaccine is available for everyone.

X. ANTIVIRAL AGENTS

Because vaccine will likely not be available when the novel virus first affects communities, antivirals may play an important role for the control and prevention of influenza, especially during the period before vaccine is available. HHS is working to increase the stockpile of antiviral drugs (specially, oseltamivir) in the Strategic National Stockpile (SNS). By the end of 2006, Wyoming's share of this stockpile should be about 34,000 treatment courses; by the end of 2007, this share will be approximately 75,000 courses. In addition, WDH is purchasing approximately 52,000 additional courses through a federal contract. This will provide a total public health stockpile of approximately 127,000 courses

As in the case of vaccine use, recommendations for priority groups for antivirals have been established at the national level. The Working Group is responsible for reviewing the recommended groups, developing Wyoming-specific guidelines, and distributing those guidelines to all physicians and pharmacists in the state. For publically-available antivirals, WDH will develop a distribution and allocation protocol for target groups. As with vaccine, it will be critical to clearly communicate with the public about the rationale for priority groups. Coordination with and education of the private sector will be an important aspect of planning.

A. Background Information on Antiviral Agents

Four antiviral agents are approved for treatment of influenza: amantadine, rimantadine, zanamivir, and oseltamivir. All of the agents are also approved for prophylactic use in certain circumstances.

The adamantane derivatives, amantadine and rimantadine, are approved for treatment and prophylaxis of influenza A. When administered for treatment within 48 hours of illness onset, controlled studies have found that both drugs are effective in decreasing viral shedding and reducing the duration of illness of influenza A by approximately one day compared with placebo. No prospective trials have documented reductions in influenza complications such as pneumonia or in the need for hospitalization. When used for prophylaxis during annual influenza outbreaks, amantadine and rimantadine generally have been approximately 70% - 90% effective in preventing symptomatic illness caused by influenza A. To be effective prophylaxis must be continued until exposure has ceased. The adamantanes are considered best suited for prophylaxis because of the high potential for viral resistance to emerge during treatment, the potential supply, and their cost. Identification of influenza within a community should be the trigger for initiating prophylaxis, when indicated. Based on recent experience with seasonal influenza, it is likely that the adamantanes will have limited benefit for treatment or prophylaxis in a pandemic.

Neuraminidase inhibitors (oseltamivir and zanamivir) are effective against influenza A and B, and may be better suited for treatment than the adamantanes because of the potential for viral resistance when adamantanes are used for therapy. Oseltamivir can also be used for prophylaxis. When treatment is initiated within 48 hours of illness onset, both drugs are effective in decreasing shedding and reducing the duration of symptoms of influenza by approximately one to two days compared with placebo. Distribution of drugs for therapy is a challenge given the limited amount available, the large number of points of care, and the need to initiate the course of treatment within 48 hours of onset of symptoms.

The choice of which antiviral medications to use, and whether to use for treatment or prophylaxis, will vary depending on the susceptibility of the influenza virus strain, the epidemiology of the disease, and medication availability.

Additional information on antiviral treatments and their use can be found in Appendix J and in Part 2, Supplement 7 of the HHS Pandemic Influenza Plan.

B. Strategies for Antiviral Drug Use

1. Because antiviral drug supply is limited, planning for the use of antiviral drugs will be based on defined goals and identified priority groups targeted to achieve those goals.

2. WDH will be flexible in deciding optimal use of antiviral drug supply based on the available supply, and the local impacts and epidemiology of the pandemic.
3. The duration of prophylaxis is estimated to be six to eight weeks if used while influenza is circulating in a community or may be longer. Because prophylaxis would be provided to a group of people who were at risk of exposure to the pandemic virus and its consequences, many of those who receive prophylaxis may not become infected and may not have become ill even in its absence. Therefore, for a given quantity of antiviral drugs, prophylaxis (if indicated) should be targeted to very specific and limited groups of people; treatment is generally considered a more efficient strategy than prophylaxis on a population wide basis.
4. Use of adamantanes for therapy can lead to the development and subsequent spread of resistant influenza viruses. Based on recent experience with seasonal influenza, it is likely that the adamantanes will have limited benefit for treatment or prophylaxis in a pandemic.
5. The effectiveness of antiviral drug therapy when started more than 48 hours after onset of influenza symptoms is usually decreased; therefore initiation of treatment with antiviral medications more than 48 hours after onset should generally be reserved for special circumstances, such as severe illness.
6. HHS has devised some general recommendations on target groups for the use of antiviral medications during a pandemic when supply is limited, and WDH has adapted these for WY (see Appendix K). This priority group list is to serve as a guide for healthcare providers and public health officials and it is recommended that the use of antiviral medications in an influenza pandemic be guided by these priority groupings. These recommendations were developed taking into consideration the likely limited supply of antiviral medications, the fact that some groups of people are at higher risk for severe complications and death, and the need to maintain a community's ability to provide essential services, such as healthcare. During an actual pandemic, these recommendations and resulting use of antiviral medications may change based on the pandemic characteristics and antiviral medication supply. In addition, use of public health stockpiles may vary from these target group recommendations in an effort to maintain critical public health and patient care infrastructure.
7. In addition to treatment of already ill persons, antiviral medication prophylaxis throughout the period of increased influenza activity due to the pandemic strain of certain groups of people may lessen the overall adverse impact on a community (see Appendix K). WDH has identified the following groups as persons for whom antiviral medication prophylaxis *may be indicated if the supplies of antiviral medications in public health stockpiles are sufficient.* It is important to note

that public health stockpiles of antiviral medications are limited and may not allow for prophylaxis of persons in all these groups, or even all persons in any one group.

a) Prophylaxis might be considered for healthcare workers (HCW) in emergency departments, intensive care units, dialysis units, and EMS providers. This could include all staff in these settings who are required for effective functioning of these units. If supplies of antiviral medications allow, consideration of prophylaxis for other HCWs with direct patient contact could be considered.
b) Prophylaxis might also be considered for public health (PH) workers who will be essential for administration and distribution of vaccine and antiviral medications, involved in influenza surveillance and implementation of control measures, and critical to maintain PH response to a pandemic situation (e.g. public health nursing, all hazard response coordinators, immunization program staff, epidemiologists, county health officers, public health laboratory workers, and state health officer).
c) Prophylaxis of highest risk outpatients who are at highest risk of severe disease and death could also be considered if supplies allow. This includes persons with hematopoetic stem cell transplants and solid organ transplants; those with severe immunosuppression due to cancer therapy or hematological malignancy; persons receiving immunosuppressive therapy for other illnesses (e.g., rheumatoid arthritis); persons with HIV infection and a CD4 count <200; persons on dialysis; and women who are in the second or third trimester of pregnancy.
d) If supplies allow, and the needs of groups in the priority recommendation list (appendix K) can be met, prophylaxis of persons critical to public safety (e.g. law enforcement, fire, corrections, emergency management workers, etc) and to societal function (e.g. coroner, mortuary, utility, waste, transportation workers, elected officials critical to a pandemic response, etc) could be considered; this will largely be determined by county officials based on supplies and needs.

8. In the event of a pandemic, local healthcare facilities will be the primary entity responsible for the care and treatment of ill persons, as in a non-pandemic situation. It is therefore recommended that healthcare facilities and pharmacies maintain a supply of antiviral medications that could be used for the care of patients, and possibly prophylaxis of staff if part of their prevention strategy, as the availability of such medications allows. Current evidence indicates the facility supply should include oseltamivir (Tamiflu); however the facility supply does not necessarily need to be restricted to oseltamivir as other antiviral medications such as

zanamivir (Relenza) may be effective against pandemic virus strains. In addition, at this time the antiviral medication available for public health stockpiles does NOT include suspension formulations for pediatric dosing, so healthcare facilities and pharmacies should consider this need. While it is possible that public health stockpiles of antiviral medications may be available, relying solely on public health stockpiles would likely not provide sufficient amounts of antiviral medications and would not be the most efficient means of providing treatment to patients.

C. Activities by Wyoming Pandemic Phase

1. Wyoming Phase 1; Inter-pandemic Period
   a. Review and modify as needed the national recommendations for priority groups
   b. Quantify high priority populations for prophylaxis and therapy, and develop drug distribution contingency plans for the different possible distribution scenarios.
   c. Evaluate the need for a state stockpile of antivirals. If a stockpile is to be established, develop plans for ordering, storage, and distribution of a state stockpile.
   d. Develop plans for storage and distribution of federally purchased stockpile being held by the Strategic National Stockpile.
   e. Develop plans for education and notification of the medical community and of the public around appropriate prescribing information.
   f. Consider developing data management system to track supplies, distribution, and use.

2. Wyoming Phases 2 and 3; Pandemic Alert and early Pandemic Periods
   a. Convene the Working Group, the Advisory Group, and appropriate partners and stakeholders to review major elements of the antivirals plan. Modify plan as needed to account for updates, if any, on recommended target groups and projected drug supply.
   b. Notify the medical community of the status of the plan and antiviral availability.
   c. Disseminate antiviral use guidelines to the medical community and conduct training for public health staff involved in antiviral distribution protocols and procedures.
   d. Ensure that the human resources and logistics are in place to begin drug distribution and administration, taking into account the need for added staff due to illness.

3. Wyoming Phases 4 and 5; Pandemic Period
   a. Fully activate antiviral drug distribution plan.
   b. Implement data management system for antiviral distribution, use, and supply.

XI. SURGE CAPACITY

Maintenance of critical services and surge capacity issues in the health care system are addressed in the WDH EOP being worked on through the CDC and HRSA cooperative agreements. The Working Group has been collaborating with the above groups to ensure that these groups consider pandemic influenza as a potential scenario in these planning efforts.

A. Estimate of Need for Healthcare Services

Although there is great uncertainty associated with any estimate of an influenza pandemic's impact, the following estimates of the potential impact of an influenza pandemic on Wyoming are derived from calculations using the CDC software, *FluAid 2.0*. All of the following calculations are based on Wyoming population estimates from 2000 U.S. Census Bureau data. Table 4 contains estimates of the potential impact of the next influenza pandemic in Wyoming based on a 25% attack rate. The conservative estimates, labeled "1968 - type scenario," were primarily generated using rates of influenza-related illness measured during the 1960s and 1970s. The high estimates labeled "1918-type scenario" were generated using rates of influenza-related morbidity and mortality from the influenza pandemic of 1918. (For more information on the model used to develop these projections see Meltzer MI, Cox NJ, Fukuda K. *The Economic Impact of Pandemic Influenza in the United State: Priorities for Intervention*. Emerging Infectious Diseases 1999; 5: 659-71.)

Table 4: Total estimates, per health outcome, from the most severe scenario of potential impact of next influenza pandemic in Wyoming: Gross Attack Rate* of 35% (172,824 clinically ill)

	Severe scenario (1918 - type)
Deaths	3,603
Hospitalizations§	15,926
Total hospital beds needed§	18,448
Outpatients€	76,648

*Gross attack rate = % of WY pop assumed to become clinically ill with influenza during the next pandemic.
§ As a health outcome, the term "hospitalizations" refers to those who are hospitalized due to influenza-related illness but survive (i.e., their end health outcome is hospitalization). However, a percentage of those who will die from influenza-related illnesses are likely to die in hospital. Thus, total hospital beds required will be the sum of hospitalizations + deaths in hospital. We have assumed, for the sake of illustration that 70% of influenza-related deaths will occur in hospital.
€ Outpatient visits is calculated by (total symptomatic-deaths-hospitalizations)*% seeking care. It is assumed that approx 50% will seek care.

B. Evaluation of Existing Healthcare Infrastructure

The WDH Emergency Medical Services and HRSA Programs has completed a survey of all hospitals in the state to determine a number of healthcare infrastructure indicators. This information is available by request from these programs.

WDH is required by HRSA to implement a hospital tracking system that will include information on the following: bed availability for intensive care unit (including pediatric ICU beds), medical and surgical, burn care, pediatrics, psychiatric, emergency department, negative pressure isolation, operating rooms; emergency department divert status; decontamination facility availability; ventilator availability; and availability of other supplies and equipment. The HRSA Program within WDH is working to implement such a system. The system currently being considered will not be able to track number of patients and/or waiting time in the emergency department or track the number of patients waiting for beds.

C. Maintenance of Healthcare Services

Healthcare facilities must be aware of their responsibilities regarding pandemic planning and response. Guidelines for healthcare facility management (including infection control recommendations) during an influenza pandemic are available (Appendix L). These guidelines may be further developed by the Working Group and will be distributed to hospitals and long-term care facilities in the state following approval of the State Health Officer.

Because health care personnel will be as affected by illness as least as much, if not more than, the general population, we can expect that there will be high absenteeism rates among healthcare staff, at least until vaccine becomes available. While retired healthcare providers and volunteers can be called on to assist in the care of the ill, it is likely that much of the care will become the responsibility of families, whether the patient is at home or in the hospital. It may become necessary to develop informational materials on the care of influenza patients in the home as well as guidelines regarding when to seek professional medical care.

XII. COMMUNICATIONS

A. Protocols for Information Dissemination

- The WDH Public Information Officer (PIO) will oversee all public and media relations for the WDH in coordination with WOHS and other state agencies.
- The WDH Emerging Diseases/Health Statistics Section will lead the development and release of any pandemic influenza related materials or information to the public, healthcare community, and media under the direction of the State Epidemiologist and the State Health Officer.
- The State Health Officer and the State Epidemiologist (or their designee) will serve as the principle spokespersons for the WDH.
- On the local level, the County Health Officers (or their designee) will serve as the spokespersons under the direction of the State Health Officer.
- A public information committee comprised of the WDH PIO, State Epidemiologist or his designee, State Health Officer and representatives from the Emerging Diseases/Health Statistics Section will review talking points, FAQs, and fact sheets before distribution to the public. In the event that time is of the essence, the committee may be abbreviated to include a smaller number of reviewers.
- WDH will disseminate information to all audiences through press conferences, press releases, media interviews, the WDH website, local public health contacts, the Health Alert Network, professional medical organizations, and other resources.
    - A toll-free hotline (1-888-996-9104) has been established by the WDH to respond to public health emergencies on a 24/7 basis.
    - A toll-free hotline (1-877-996-9000) has been established by the Emerging Diseases/Health Statistics Section staff to respond to calls during normal working hours.
    - WDH has the capacity for broadcast faxing to a number of groups: public health employees, infection control practitioners, emergency rooms, physicians, and others.
    - Information could be distributed through mass mailings on a limited basis.
    - The Emerging Diseases/Health Statistics Section of WDH publishes the Epidemiology Bulletin on a bi-monthly basis.
    - WDH provides articles for publication in the newsletters of professional associations.
- For non-English speaking populations, WDH will use translated materials provided by the CDC.

B. Activities by Wyoming Pandemic Phase

2. Wyoming Phases 1 and 2; Inter-pandemic and Pandemic Alert Periods

   a. Identify and train state and local spokespersons (and backups).
   b. Develop risk communications messages (available on WDH website).
   c. Develop a plan for coordination of messages between state and local public health officials, and all involved partners.
   d. Educate public health officials, politicians, and the media about what information will and will not be available during a pandemic.
   e. Review CDC materials as they become available. Adapt and revise as needed.

2. Wyoming Phases 3, 4, and 5; Pandemic Alert and Pandemic Periods

   a. Review and modify developed materials and messages as needed.
   b. Disseminate information to the public, partners, and the media on ongoing basis.
   c. Prepare spokespersons.
   d. Monitor media coverage and address misinformation.
   e. Coordinate with bordering jurisdictions as needed.

XII. Appendices

Appendix A: Pandemic Influenza Working Group and Advisory Committee Members

Pandemic Influenza Working Group Members

- State Health Officer
- State Epidemiologist
- Deputy State Epidemiologist
- Public Health Laboratory Manager
- Emerging Diseases/Health Statistics Section Chief
- Epidemic Intelligence Service Officer
- Representatives from Public Health Nursing Program
- Immunization Program Manager
- Influenza Surveillance Epidemiologist
- HRSA Hospital Preparedness Program Coordinator
- Public Health and Terrorism Preparedness Program Manager
- Public Health and Terrorism Preparedness Planning and Readiness Assessment Senior Facilitator
- Public Health and Terrorism Preparedness Epidemiologist
- WDH Public Information Officer
- Strategic National Stockpile Coordinator
- Representative from Pharmacy Program

Pandemic Influenza Advisory Committee Members

- Representatives from the following:
  - Governor's Office
  - Wyoming Office of Homeland Security
  - Wyoming Department of Health:
    - Director's Office
    - Public Health and Terrorism Preparedness Program
    - Emergency Medical Services Program
    - Infectious Disease Epidemiology Program
    - Immunization Program
    - Mental Health Division
    - Office of Rural Health
    - Pharmacy Program
    - Public Health Laboratory
    - Public Health Nursing Program
  - Wyoming Hospital Association
  - Wyoming Medical Society
  - Wyoming Board of Medicine
  - Wyoming Board of Nursing
  - Indian Health Services
  - Wyoming Department of Education
  - Wyoming Department of Corrections
  - Quality Healthcare Foundation of Wyoming
  - Wyoming Business Council
  - Wyoming County Commissioner Association
  - County Health Departments
  - Veteran's Administration Hospitals
  - National Guard
  - Attorney General's Office

Appendix B: Pandemic Influenza Planning Roles

Pandemic influenza planning is essential, but in order to plan effectively it is important to know what is being done at each level of the public health system. This fact sheet contains examples of planning roles at the federal, state, and local level.

Federal Planning Roles

- National and international surveillance
- "Pandemic Phase" declarations
- Development and use of diagnostic laboratory tests and reagents
- Development of reference strains and reagents for vaccines
- Vaccine evaluation and licensure
- Determination of populations at highest risk and strategies for vaccination and antiviral use
- Assessment of measures to decrease transmission (travel restrictions, isolation, and quarantine)
- Deployment of federally purchased vaccine
- Deployment of antiviral agents in the Strategic National Stockpile
- National adverse events surveillance system
- Evaluation of vaccine safety
- Deployment of Commissioned Corps Readiness Force and Epidemic Intelligence Service officers
- Medical and public health communications
- National information database/ exchange/clearinghouse on the internet
- Development of the following:
    - Fact sheets on influenza disease, vaccine and antivirals
    - Strategies and guidelines for interacting with the media and communicating with public health agencies, medical communities, and the general public
    - Guidelines for triage and treatment of influenza patients

Wyoming Department of Health Planning Roles

- Development of state pandemic preparedness and response plan
- Coordination of state-wide influenza surveillance
- Vaccine and antiviral medication procurement and distribution plans
- Development of data management systems needed to implement components of the plan.
- Identification of essential service *groups* as first round vaccine recipients
- Statewide media messages
- Legislative/administrative measures
- Coordination with local areas to ensure development and exercise of local plans.
- Coordination with other state agencies
- Coordination with adjoining jurisdictions.

Local Planning Roles

- Development of local emergency operations plan
- Surveillance assistance as requested
- Vaccine and antiviral medication storage and distribution plans
- Identification of essential service *persons* as first round vaccine recipients
- Local emergency response
- Continuation of operations

Appendix C: Pandemic Planning Guidance for Local Public Health

Because pandemic influenza outbreaks are expected to occur simultaneously throughout much of the United States, shifts in human and material resources that normally occur with other natural disasters will not be possible. This unique challenge should be considered during pandemic influenza planning. This guidance document highlights a number of issues that should be considered during the pandemic planning process at the local level.

I. Command and Control

A. Inter-pandemic Period

- Identify persons/agencies responsible for writing and updating the plan.
- Determine how often the plan should be revised.
- Review existing emergency response or similar plans that have already been developed and determine how the pandemic plan can be incorporated into existing plans.
- Identify leaders and decision makers for pandemic response activities in your jurisdiction.
- Identify services which support pandemic response activities.
- Maintain resource lists of staff and services which support pandemic response activities.
- Identify essential services of your agency which must be continued during a pandemic.
- Identify who is responsible for documentation of costs of the pandemic response.
- Identify facilities within the jurisdiction that can be used to support response activities including:
    1. Local Emergency Operations Center
    2. Vaccination sites (small and mass clinics) and antiviral distribution sites
    3. Vaccine and antiviral storage sites
    4. Identify who is responsible for obtaining permission to use facilities.
    5. Establish Memorandums of Understanding (MOUs) for facility use.

B. Pandemic Alert and Pandemic Periods

- Identify public health and emergency management roles.
- Identify agencies with whom activities should be coordinated.
- Identify an individual or agency who will track the status of pandemic response activities
- Identify who re-assigns staff for pandemic response activities and who monitors staffing needs.
- Identify who is responsible for coordination with other local and state agencies.
- Have decision-makers meet to discuss local response activities.

C. Pandemic Over

- ❑ Identify who summarizes pandemic activities.
- ❑ Identify who decides when staff will return to usual activities.

II. Surveillance

Surveillance is primarily a state public health activity; local public health may be asked to assist in disease surveillance.

A. Inter-pandemic Period

- ❑ Support routine influenza surveillance activities of the WDH.
- ❑ Assist in identifying sentinel physicians and school nurses for surveillance.

B. Pandemic Alert Period

- ❑ Work with the WDH to ensure that all health care providers within your jurisdiction are aware of the recommendation to culture patients presenting with ILI with recent travel history to an affected area.

C. Pandemic Period

- ❑ Continue to work with the WDH to ensure that all health care providers within your jurisdiction are aware of the current lab testing recommendations.
- ❑ Assist with specimen collection and/or data collection as appropriate.

D. Pandemic Over

- ❑ Assist WDH in data collection for retrospective characterization of the pandemic.

III. Vaccine Management

Obtaining vaccine, distribution to regional centers, and identification of priority vaccination groups is a state responsibility. Local agencies will be responsible for identifying persons in priority groups and administering vaccine.

A. Inter-pandemic Period

- ❑ Develop contingency plans for mass and small vaccination clinics
  - o Identify facility, storage unit, supplies, and staffing requirements.
- ❑ Develop a system in your jurisdiction to identify number of persons in priority groups for vaccination (reminder: coordinate with local emergency management).
- ❑ Identify an estimated number of persons in priority groups for vaccination based on job description
- ❑ Assist WDH to improve current seasonal influenza and pneumococcal vaccination efforts

- Make sure that all providers are aware of influenza and pneumococcal vaccine recommendations.
- Encourage providers to administer influenza and pneumococcal vaccine to ACIP recommended groups.

C. Pandemic Alert and Pandemic Periods

Before vaccine is available:

- Identify individuals (actual people) in priority groups for vaccination as defined by the WDH.
- Develop standing orders.
- Identify sites to administer vaccine.
- Identify staff who can assess patients for eligibility.
- Identify staff who can administer vaccine and determine the need for volunteers.

When vaccine is available:

- Coordinate transportation and security with local emergency management.
- Use WDH Immunization Registry to track clinic participation, lot numbers.
- Use VAERS to track adverse vaccine reactions.

D. Pandemic Over

- Summarize pandemic influenza vaccination response
- Summarize lessons learned from vaccination efforts.

IV. Antiviral Management

Obtaining antiviral medications, distribution to local centers, and identification of priority vaccination groups is a state responsibility. Local agencies will be responsible for storing and distributing antivirals.

A. Inter-pandemic Period

- Develop contingency plans for storage and dispensing sites.
    - Identify facility, storage unit, supplies, and staffing requirements.

C. Pandemic Alert and Pandemic Periods

Before antivirals are available:

- Develop standing orders as needed.
- Identify sites to distribute medications.
- Identify staff who can assess patients for eligibility.
- Identify staff who can distribute medications and determine the need for volunteers.

When antivirals are available:

- Coordinate transportation and security with local emergency management.
- Track medications dispensed using system that will be provided by WDH.

D. Pandemic Over

- Summarize pandemic influenza antiviral response
- Summarize lessons learned from mass distribution efforts.

V. Emergency Response

A. Inter-pandemic Period

- Inventory relevant medical supplies, facilities, and services in your jurisdiction.
- Identify individuals and agencies who will need to be notified within your jurisdiction.
- Identify individual responsible for make local recommendations.
- Identify who will be represented on local planning and assessment teams
- Identify local technical advisors.
- Determine who within local agencies should be notified (may want to develop contingencies for multiple vs. sporadic cases).
- Determine who outside of local agencies should be notified.

C. Pandemic Alert and Pandemic Periods

- Notify agencies within jurisdiction.
- Have decision makers meet.
- Review current policies and new recommendations.
- Coordinate response activities with neighboring jurisdictions.
- Activate local Emergency Operations Center (EOC) as appropriate.
- Refer to local and agency EOP plans.

D. Pandemic Over

- Review current policies, standing orders, and new recommendations.
- Coordinate response activities with other localities.
- Reduce staffing/close EOC as appropriate.
- Evaluate pandemic response.
- Summarize pandemic response and debrief.

VI. Communications

A. Inter-pandemic Period

- Identify personnel and agencies within the county to be notified during the stages of a pandemic.
- Determine communication network and responsibilities between local public health and local emergency management.
- Develop/coordinate communication with your jurisdiction's health care professionals
- Coordinate media messages with state agencies and other local agencies.
- Identify deficiencies in your communications systems.

B. Pandemic Alert and Pandemic Periods

- Identify personnel within the agency to be notified.
- Develop/coordinate communication with health care professionals.
- Identify other agencies to be notified.
- Coordinate media messages with state agencies and other local agencies.

Appendix D: CDC Avian Influenza Follow-up Form

CDC Human Influenza A (H5)

Human Influenza A (H5) Domestic Case Screening Form

CDC Case ID:

1. Reported By		
Date reported to state or local health department: __ __ / __ __ / __ __ __ __ m m d d y y y y		State/ local Assigned Case ID:
Last Name:		First Name:
State:	Affiliation:	Email:
Phone 1:	Phone 2:	Fax:

2. Patient Information	
City of Residence: County: State:	
Age at onset: _____ □ Year(s) □ Month(s) Sex: □ Male □ Female	Race: (Choose One) □ American Indian/Alaska Native □ White □ Asian □ Unknown □ Black □ Native Hawaiian/Other Pacific Islander Ethnicity: □ Non Hispanic □ Hispanic

3. Optional Patient Information	
Last Name:	First Name:

4. Signs and Symptoms		
A. Date of symptom onset: __ __ / __ __ / __ __ __ __ m m d d y y y y		
B. What symptoms and signs did the patient have during the course of illness? (check all that apply)		
◆ Fever > 38° C (100.4° F)	◆ Feverish (temperature not taken)	◆ Conjunctivitis
◆ Cough	◆ Headache	◆ Shortness of breath
◆ Sore throat	◆ Other (specify): _____	
C. Was a chest X-ray or chest CAT scan performed? □ Yes* □ No □ Unknown If yes*, did the patient have radiographic evidence of pneumonia or respiratory distress syndrome (RDS)? □ Yes* □ No □ Unknown		

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
SAFER • HEALTHIER • PEOPLE™

Influenza A (H5) Domestic Case Screening Form 1.0 (continued from previous page)

Epidemiologic Risk Factors

CDC Case ID:

5. Travel/Exposures
A. In the 10 days prior to illness onset, did the patient travel to any of the countries listed in the table below? □ Yes* □ No** □ Unknown
If yes*, please fill in arrival and departure dates for all countries that apply.

**If patient did not travel outside U.S., skip to question 6.

Country	Arrival Date	Departure Date	Country	Arrival Date	Departure Date
◆ Afghanistan			◆ Myanmar (Burma)		
◆ Bangladesh			◆ Nepal		
◆ Brunei			◆ North Korea		
◆ Cambodia			◆ Oman		
◆ China			◆ Pakistan		
◆ Hong Kong			◆ Papua New Guinea		
◆ India			◆ Philippines		
◆ Indonesia			◆ Saudi Arabia		
◆ Iran			◆ Singapore		
◆ Iraq			◆ South Korea		
◆ Israel			◆ Syria		
◆ Japan			◆ Taiwan		
◆ Jordan			◆ Thailand		
◆ Laos			◆ Turkey		
◆ Lebanon			◆ Viet Nam		
◆ Macao			◆ Yemen		
◆ Malaysia					

For the questions 5B to 5E,
In the 10 days prior to illness onset, while in the countries listed above . . . .

B. Did the patient come within 1 meter (3 feet) of any live poultry or domesticated birds (e.g. visited a poultry farm, a household raising poultry, or a bird market)? □ Yes* □ No □ Unknown **If Yes***

C. Did patient touch any recently butchered poultry? □ Yes □ No □ Unknown

D. Did the patient visit or stay in the same household with anyone with pneumonia or severe flu-like illness? □ Yes □ No □ Unknown

E. Did the patient visit or stay in the same household with a suspected human influenza A(H5) case?* □ Yes □ No □ Unknown

F. Did the patient visit or stay in the same household with a known human influenza A(H5) case?* □ Yes □ No □ Unknown

*** SEE Influenza A (H5): Interim U.S. Case Definitions**

Influenza A (H5) Domestic Case Screening Form 1.0

(continued from previous page)

CDC ID:

6. Exposure for Non Travelers

For patients whom did not travel outside the U.S., in the 10 days prior to illness onset, did the patient visit or stay in the same household with a traveler returning from one of the countries listed above who developed pneumonia or severe flu-like illness? □ Yes* □ No □ Unknown

If yes*, was the contact a confirmed or suspected H5 case patient? □ Yes* □ No □ Unknown

If yes*: CDC ID: _____ STATE ID: _____

Laboratory Evaluation

7. State and local level influenza test results	
Specimen 1	
□ NP swab □ Broncheoalveolar lavage specimen (BAL) □ NP aspirate □ OP swab □ Other _____	Date Collected: __ __ / __ __ / __ __ __ __ m m d d y y y y
Test Type: □ RT-PCR □ Direct fluorescent antibody (DFA) □ Viral Culture □ Rapid Antigen Test* *Name of Rapid Test:	Result: □ Influenza A □ Influenza B □ Influenza (type unk) □ Negative □ Pending
Specimen 2	
□ NP swab □ Broncheoalveolar lavage specimen (BAL) □ NP aspirate □ OP swab □ Other _____	Date Collected: __ __ / __ __ / __ __ __ __ m m d d y y y y
Test Type: □ RT-PCR □ Direct fluorescent antibody (DFA) □ Viral Culture □ Rapid Antigen Test* *Name of Rapid Test:	Result: □ Influenza A □ Influenza B □ Influenza (type unk) □ Negative □ Pending
Specimen 3	
□ NP swab □ Broncheoalveolar lavage specimen (BAL) □ NP aspirate □ OP swab □ Other _____	Date Collected: __ __ / __ __ / __ __ __ __ m m d d y y y y
Test Type: □ RT-PCR □ Direct fluorescent antibody (DFA) □ Viral Culture □ Rapid Antigen Test* *Name of Rapid Test:	Result: □ Influenza A □ Influenza B □ Influenza (type unk) □ Negative □ Pending

Influenza A (H5) Domestic Case Screening Form 1.0

(continued from previous page)

CDC ID:

8. List specimens sent to the CDC	
Select a SOURCE* from the following list for each specimen: Serum (acute), serum (convalescent), NP swab, NP aspirate, broncheoalveolar lavage specimen (BAL), OP swab, tracheal aspirate, or tissue	
Specimen 1: □ Clinical Material □ Extracted RNA □ Virus Isolate	Source*: Collected : __ __ / __ __ / __ __ __ __ m m d d y y y y Date Sent: __ __ / __ __ / __ __ __ __ m m d d y y y y
Specimen 2: □ Clinical Material □ Extracted RNA □ Virus Isolate	Source*: Collected : __ __ / __ __ / __ __ __ __ m m d d y y y y Date Sent: __ __ / __ __ / __ __ __ __ m m d d y y y y
Specimen 3: □ Clinical Material □ Extracted RNA □ Virus Isolate	Source*: Collected : __ __ / __ __ / __ __ __ __ m m d d y y y y Date Sent: __ __ / __ __ / __ __ __ __ m m d d y y y y
Specimen 4: □ Clinical Material □ Extracted RNA □ Virus Isolate	Source*: Collected : __ __ / __ __ / __ __ __ __ m m d d y y y y Date Sent: __ __ / __ __ / __ __ __ __ m m d d y y y y
Specimen 5: □ Clinical Material □ Extracted RNA □ Virus Isolate	Source*: Collected : __ __ / __ __ / __ __ __ __ m m d d y y y y Date Sent: __ __ / __ __ / __ __ __ __ m m d d y y y y
Carrier:	Tracking #:

9. Case Notes:

Influenza A (H5) Domestic Case Screening Form 1.0

(continued from previous page)

CDC ID:

CDC Contact Information (FOR CDC USE ONLY)	
Case status and date status applied: ☐ Clinical Case (lab results pending) __ __ / __ __ / __ __ __ __ (m m d d y y y y) ☐ Influenza A pos. Case (subtype pending) __ __ / __ __ / __ __ __ __ (m m d d y y y y) ☐ Confirmed Case __ __ / __ __ / __ __ __ __ (m m d d y y y y)	☐ Ruled Out/Non-Case: __ __ / __ __ / __ __ __ __ (m m d d y y y y) Reason: ☐ Influenza A neg. (by PCR, viral culture, or influenza A serology) ☐ Non-H5 Influenza Strain ☐ Other etiology* ☐ Did not meet case definition
Date Entered by CDC: __ __ / __ __ / __ __ __ __ (m m d d y y y y)	Contact Date: __ __ / __ __ / __ __ _ __ (m m d d y y y y)
Name of CDC Contact:	

*Alternative Diagnosis			
A. Was an alternative non-influenza respiratory pathogen detected? If yes* specify:	☐ Yes*	☐ No	☐ Unknown
B. Was there a diagnosis other than respiratory infection? If yes* specify:	☐ Yes*	☐ No	☐ Unknown

Appendix E: Isolation Letter to Suspected and Confirmed Novel Influenza Cases

Dear Patient:

You have recently been diagnosed with an infection with a novel strain of influenza. Although you may be feeling better and are being sent home from the hospital or clinic, others who are in close contact with you could still get the infection from you.

Because influenza is contagious, strong measures must be taken to stop further spread of the disease. As a result, **you are directed to follow the following guidelines from now until 10 days after your fever is gone (the actual length of isolation will be determined during an actual pandemic based on epidemiologic data and guidance from the CDC).** If your respiratory symptoms (cough, shortness of breath, or difficulty breathing) have not improved after 10 days, you may need to follow the guidelines for a longer time. Your healthcare provider and/or the Wyoming Department of Health will tell you if you need to follow the guidelines for longer than 10 days.

1. <u>Stay at home.</u>

You may leave your home only if you remain on your property and have no face-to-face contact with anyone other than members of your household.

You may not leave your property during this isolation period for any reason, except a medical emergency. Do not go to work, school, or any other public areas. If you need something from outside your home, ask family, friends, and neighbors who are not sick to get it for you.

Failure to follow these instructions will place the health of others at risk.

2. <u>Use safe practices so your household members do not get sick.</u>

Wearing a surgical mask when you are around other people may help lessen the chance you will spread your illness to others. You may be provided a surgical mask(s) to take with you by your healthcare provider or local public health officials, depending on supplies. In addition, surgical masks can usually be purchased at drug stores or medical supply stores. If you must purchase your own masks please have a family member or friend who is not ill make the purchase for you.

Cover your mouth and nose with a tissue when you sneeze, cough, or blow your nose. Put the used tissue in the garbage and remember to wash your hands immediately afterwards.

While at home, limit your contact with those that live with you as much as possible. Consider designating one person as the primary care provider. Sleep in a separate room, if possible, or at least in a separate bed. Avoid close contact such as kissing.

Persons who have not been exposed to pandemic influenza and who are not essential for patient care or support should not enter the home while persons are actively ill with pandemic influenza. If unexposed persons must enter the home, they should avoid close contact with the patient.

Wash your hands for at least 15 seconds often with soap and warm water or alcohol-based hand rubs. Hand washing may be the best way to prevent others from getting sick. You should wash your hands after coughing, sneezing, blowing your nose, and going to the bathroom.

Throw out your used tissues and face masks with your regular garbage. Do not share eating utensils (spoons, forks, cups, or glasses), towels, or bedding (pillows, sheets, or blankets) with others. These items can be used again after routine cleaning with soap and hot water. Do not share toothbrushes, cigarettes and other tobacco products, or drinks.

If any of your body fluids (such as secretions from your nose or mouth) get on surfaces in your home (such as door knobs or any other object that you sneeze or cough on), the surface should be washed with a household cleaner, such as bleach (1 part household bleach to 9 parts water). Anyone doing the cleaning should wear gloves.

The local Public Health Nursing office will be calling your home on a daily basis to check to see if anyone in your family or household is getting sick. If someone you live with or spend time with gets sick with fever or respiratory symptoms (cough, shortness of breath, or difficulty breathing), please call that person's healthcare provider right away. Also, please call the Wyoming Department of Health at (888) 996-9104.

3. Call your healthcare provider if your symptoms worsen.

If your symptoms worsen, please call your healthcare provider immediately.

If you need to go to the doctor's office, you should have a family member or friend drive you in a private car. Do not take public transportation (bus). Please contact your doctor before you visit and tell the doctor you have been diagnosed with avian influenza. If you have one, wear a surgical face mask on the way to see your healthcare provider. You should go straight to the receptionist when you arrive so they can put you in a private room. Try to sit away from others as much as possible.

If you are very sick and need to call an ambulance to take you to the hospital, let the operator know that you may have avian influenza when you call 911, and let the ambulance crew know when they arrive.

For more information, please call your healthcare provider or the Wyoming Department of Health at (877) 996-9000.

Sincerely,

Brent D. Sherard, M.D., M.P.H., Director
and State Health Officer
Wyoming Department of Health

Appendix F: Quarantine Instructions for Contacts of Novel Influenza Cases

You have been identified as a close contact of an individual who has been diagnosed with suspected novel influenza. Because influenza is contagious, strong measures must be taken to stop further spread of the disease. As a result, you are directed to comply with the following guidelines, from now until at least 10 days after you last had contact with the suspected avian influenza case. (This time frame will be determined by your healthcare provider and/or the Wyoming Department of Health.) **(The actual length of quarantine will be determined during an actual pandemic based on epidemiologic data and guidance from CDC).**

Monitor your temperature

Take your temperature twice a day for the time period determined by your healthcare provider and/or the Wyoming Department of Health. Record your temperature in the table below. A representative from the local Public Health Nursing office will be calling your home on a daily basis to check to see if you have developed a fever or other respiratory symptoms.

Temperature Monitoring Table for Novel Influenza Contacts

Instructions: Record your temperature twice each day for the time period determined by your healthcare provider in the boxes below.

If you develop a fever of 100° F or greater OR any respiratory symptoms (coughing, shortness of breath, etc), call your healthcare provider and the following number immediately: (888) 996-9104.

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Calendar Date										
Temperature #1										
Temperature #2										

For non-emergencies, or if you have questions, please call the Wyoming Department of Health at (877) 996-9000.

Call your healthcare provider if you develop symptoms

If you (or someone you live with or spend time with) gets sick with fever or respiratory symptoms (cough, shortness of breath, or difficulty breathing), please call your healthcare provider right away. Also, please call the Wyoming Department of Health at (888) 996-9104.

If you need to go to the doctor's office, you should have a family member or friend drive you in a private car. Do not take public transportation (e.g. bus). Please contact your doctor before you visit and tell the doctor that you have been in contact with an individual who was diagnosed with avian influenza. You should go straight to the receptionist when you arrive so they can put you in a private room. Try to sit away from others as much as possible.

If you are very sick and need to call an ambulance to take you to the hospital, let the operator know that you may have avian influenza when you call 911, and let the ambulance crew know when they arrive.

For more information, please call your healthcare provider or the Wyoming Department of Health at (877) 996-9000.

Appendix G: Facilities Identified for Mass Immunization Clinics by County

County	Name of Location	Address	City	Contact Name	Phone	MOU
Albany	UW Arena Auditorium		Laramie		766-3306	
Big Horn	Greybull High Gym SD#3		Greybull			
Campbell	Gillette Fire Stations	200 Rohan Avenue	Gillette	FC Gary Scott	682-5319	
	Wright Fire Station		Wright	FC Gary Scott	682-5319	
Carbon	Jeffrey Center	315 West Pine	Rawlins	Ann Taylor	324-4311	
Converse	Douglas Recreation Center	1701 Hamilton Street	Douglas	Barb Stinson	358-4231	
Crook	Crook Co Courthouse Basement	309 Cleveland	Sundance	Veronica Canfield	283-8390	
Fremont	Community Center	950 Buena Vista	Lander	Dan Shatto	332-3958	
	Popo Agie Senior Center (Alt)	205 South 10th	Lander	Jan Nolde	332-2746	
	Riverton High School	2001 West Sunset	Riverton		856-9407	
	Fremont Co Fair Building (Alt)	814 South Federal Blvd	Riverton		856-6611	
	School	700 North 1st	Dubois		455-2490	
	Senior Center (Alt)	504 Hays	Dubois		455-2990	
	School	112 West 3rd	Shoshoni		856-7505	
	Senior Center (Alt)	209 Main	Shoshoni		876-2703	
	Ft. Washakie Health Center		Ft Washakie			
	Rocky Mountain Hall (Alt)		Ft. Washakie			
	Arapahoe Health Center		Arapahoe			
	Great Plains Hall (Alt)		Arapahoe			
Goshen	Goshen Co Public Health	2025 Campbell Dr. # 1	Torrington	Cathy Grace	532-4069	
Hot Springs	Thermopolis Middle School	1450 Valley View	Thermopolis	Jodie Dico	864-6551	
Johnson	Catholic Rec Hall	196 East Snider	Buffalo	Father Taylor	684-7268	
	Public Schools		Buffalo	Rod Kessler, Super	684-9571	
	Johnson Co YMCA	101 Klondike	Buffalo	Doug Schultze, Dir	684-9558	
Laramie	Central Field House; E Gym		Cheyenne	Dave Adams	771-2633	
Lincoln	Star Valley High School	445 West Swift Creek	Afton	Ron Tolman, Super	885-3811	
	Church of Jesus Christ LDS	246 East 3rd Avenue	Afton	McKell Allred	886-9443	
	LDS Stake Center	62 McGovern	Kemmerer	Mark Dearden, Pres	877-3620	
	Kemmerer High School	1525 3rd West	Kemmerer	Terry Ebert, Super	877-9095	
Natrona	Casper Events Center	#1 Events Drive	Casper	Max Torbert	235-8441	
Niobrara	Niobrara Co Public Health	611 East 6th	Lusk			
Park	Cody Auditorium	1240 Beck Avenue	Cody	Jerry Parker	587-3247	
Platte	Former Jail/Sheriff's Office	Courthouse Basement	Wheatland	Dr. Steve Peasley	322-3861	
Sheridan	Gold Dome/Sheridan College	3059 Coffeen Avenue	Sheridan	Mark Englert	674-6446	
Sublette	Pinedale School Gym/Cafet.	665 North Tyler Street	Pinedale	Chuck Grove, Super	367-2139	
Sweetwater	Sweetwater Co Events Center	3321 Yellowstone Rd	Rock Springs	Chad Banks	352-6789	
Teton	Presbyterian Church	1251 South Park Loop	Jackson	Dr. Paul Hayden	734-0388	
Uinta	National Guard Armory	419 2nd Street	Evanston	Sgt. Bob June	789-2797	
	Elks Lodge	100 Cty Road 109	Evanston	Lynn Nelson	789-6902	
	Urie Elementary	1707 Powers Avenue	Lyman	Lane Parmenter	782-6429	
Washakie	Worland Middle School	1200 Culbertson	Worland	Mike Hejtmanek	347-4285	
	Washakie Co Public Health	1007 Robertson	Worland	Lori Schaal, RN	347-3221	
Weston	Salt Creek Vet Clinic	5362 US Hwy 16	Newcastle	Dr. Pete Vorhapll	746-4995	

Appendix H: Influenza Doses Administered Form (*in development*)

Appendix I: HHS Vaccine Priority Group Recommendations*

Tier	Subtier	Population	Rationale
1	A	• Vaccine and antiviral manufacturers and others essential to manufacturing and critical support • Medical workers and public health workers who are involved in direct patient contact, other support services essential for direct patient care, and vaccinators	• Need to assure maximum production of vaccine and antiviral drugs • Healthcare workers are required for quality medical care (studies show outcome is associated with staff-to-patient ratios). There is little surge capacity among healthcare sector personnel to meet increased demand
	B	• Persons > 65 years with 1 or more influenza high-risk conditions, not including essential hypertension • Persons 6 months to 64 years with 2 or more influenza high-risk conditions, not including essential hypertension • Persons 6 months or older with history of hospitalization for pneumonia or influenza or other influenza high-risk condition in the past year	• These groups are at high risk of hospitalization and death. Excludes elderly in nursing homes and those who are immunocompromised and would not likely be protected by vaccination
	C	• Pregnant women • Household contacts of severely immunocompromised persons who would not be vaccinated due to likely poor response to vaccine • Household contacts of children <6 month olds	• In past pandemics and for annual influenza, pregnant women have been at high risk; vaccination will also protect the infant who cannot receive vaccine. • Vaccination of household contacts of immunocompromised and young infants will decrease risk of exposure and infection among those who cannot be directly protected by vaccination
	D	• Public health emergency response workers critical to pandemic response • Key government leaders	• Critical to implement pandemic response such as providing vaccinations and managing/monitoring response activities • Preserving decision-making capacity also critical for managing and implementing a response
2	A	• Healthy 65 years and older • 6 months to 64 years with 1 high-risk condition • 6-23 months old, healthy	• Groups that are also at increased risk but not as high risk as population in Tier 1B
	B	• Other public health emergency responders • Public safety workers including police, fire, 911 dispatchers, and correctional facility staff Utility workers essential for maintenance of power, water, and sewage system functioning • Transportation workers transporting fuel, water, food, and medical supplies as well as public ground public transportation • Telecommunications/IT for essential network operations and maintenance	• Includes critical infrastructure groups that have impact on maintaining health (e.g., public safety or transportation of medical supplies and food); implementing a pandemic response; and on maintaining societal functions
3		• Other key government health decision-makers • Funeral directors/embalmers	• Other important societal groups for a pandemic response but of lower priority
4		• Healthy persons 2-64 years not included in above categories	• All persons not included in other groups based on objective to vaccinate all those who want protection

*From Part 1; Appendix D of the Department of Health and Human Services Pandemic Influenza Plan

Appendix J: Antivirals and Influenza Overview

Amantadine Manufactured under the trade name Symmetrel® by Endo Laboratories Also available in generic forms	• Used to treat uncomplicated illnesses due to influenza A in individuals 1 year of age and older (must be given within two days of illness onset) • Used prophylactically to reduce chance of getting influenza A in individuals 1 year of age and older (approximately 70%-90% effective) • Available in tablet or syrup form • Adverse reactions reported most frequently include nervousness, anxiety, nausea, dizziness, and insomnia • More serious but less frequent side effects including behavioral changes, delirium, hallucinations, agitation, and seizures have been observed among individuals with renal insufficiency, seizure disorders, certain psychiatric disorders, and older individuals • Should not be used for patients with untreated angle closure glaucoma because of anticholinergic effects • To reduce the emergence of antiviral drug-resistant viruses, amantadine therapy for treatment of influenza should be discontinued as soon as clinically warranted, typically after 3-5 days of treatment or within 24-48 hours after disappearance of signs and symptoms
Rimantadine Manufactured under the trade name Flumadine® by Forest Pharmaceuticals, Inc.	• Used to treat uncomplicated illnesses due to influenza A in individuals 13 years of age and older (must be given within two days of illness onset) • Used prophylactically to reduce chance of getting influenza in individuals 1 year of age and older (approximately 70%-90% effective) • Available in tablet or syrup form • Adverse events reported most frequently include insomnia, dizziness, headache, nervousness, fatigue, nausea, vomiting, anorexia, dry mouth, abdominal pain, and asthenia • More serious but less frequent side effects including behavioral changes, delirium, hallucinations, agitation, and seizures have been observed among individuals with renal insufficiency, seizure disorders, certain psychiatric disorders, and older individuals • To reduce the emergence of antiviral drug-resistant viruses, rimantadine therapy for treatment of influenza should be discontinued as soon as clinically warranted, typically after 3-5 days of treatment or within 24-48 hours after disappearance of signs and symptoms
Zanamivir Manufactured under the trade name Relenza® by Glaxo Wellcome, Inc.	• Used to treat uncomplicated illnesses due to influenza A and B in individuals 7 years of age and older (must be given within two days of illness onset) • Can be used prophylactically for influenza A or B in individuals 5 years of age and older. • Available as a dry powder, inhaled orally twice a day from a plastic device included in the package with the medication • Some patients, especially those with asthma or chronic obstructive pulmonary disease (COPD), have had bronchospasms or serious breathing problems after using zanamivir • Zanamivir is not recommended for patients with underlying airway disease; if physicians prescribe it after careful consideration of risks and benefits, the drug should be prescribed under careful monitoring and supportive care, including the availability of fast acting bronchodilators. • Side effects, in addition to bronchospasms, may include headache, diarrhea, nausea, bronchitis, cough, sinus inflammation, infections of the ear, nose, and throat, and dizziness. • Recommended duration of treatment is 5 days
Oseltamivir Manufactured under the trade name Tamiflu® by Roche Laboratories, Inc.	• Used to treat uncomplicated illnesses due to influenza A and B in individuals 1 year of age and older (must be given within two days of illness onset) • Used prophylactically to reduce the chance of getting influenza A or B in individuals 1 year of age and older (approximately 70%-90% effective) • Available in capsule or oral suspension form • Possible side effects include nausea and vomiting. Side effects are similar whether oseltamivir is taken for treatment or prophylaxis • Recommended duration of treatment is 5 days

Adapted from Appendix E of the Virginia Department of Health Pandemic Influenza Plan (6/2005). Information was taken from: Centers for Disease Control and Prevention. Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices. MMWR 2004; 53 (RR06): 1-39.

Appendix K: HHS Antiviral Drug Priority Group Recommendations*

The use of antiviral medications in an influenza pandemic should be guided by the following list of priority group recommendations. These recommendations were developed taking into consideration the likely limited supply of antiviral medications, the fact that some groups of people are at higher risk of severe complications and death, and the need to maintain a community's ability to provide essential services, such as healthcare.

- **Treatment of influenza patients admitted to the hospital.**
- **Treatment of health care workers with direct patient contact and emergency medical service providers.**
- **Treatment of highest-risk outpatients (immunocompromised persons and pregnant women).** Specifically this includes persons with hematopoetic stem cell transplants and solid organ transplants; severe immunosuppression due to cancer therapy or hematological malignancy; immunosuppressive therapy for other illnesses (e.g., rheumatoid arthritis); HIV infection and a CD4 count <200; dialysis; and women who are in the second or third trimester of pregnancy.
- **Treatment of pandemic health responders** (public health, vaccinators, vaccine and antiviral manufacturers), **public safety** (police, fire, corrections), and **government decision-makers.**
- **Treatment of increased risk outpatients (young children 12-23 months old, persons >65 yrs old, and persons with underlying medical conditions).**
- **Treatment of patients and prophylaxis of contacts in outbreak response in nursing homes and other residential settings.**
- **Prophylaxis of health care workers in emergency departments, intensive care units, dialysis centers, and emergency medical service providers[1].** May include all staff in these settings who are required for effective functioning of these units.
- **Treatment of critical societal infrastructure groups, and health care workers without direct patient contact.** Includes persons who provide services that must be sustained at a sufficient level during a pandemic to maintain public well-being, health, and safety. Included are workers at healthcare facilities who have no direct patient contact but are important for the operation of those facilities; utility (electricity, gas, water), waste management, mortuary, and some transport workers.
- **Prophylaxis of highest risk outpatients (e.g. immunocompromised persons, pregnant women).** See description of this group above.
- **Prophylaxis of other health care workers with direct patient contact, including public health[1].**

*Adapted by the WDH from Part 1; Appendix D of the U.S. Department of Health and Human Services Pandemic Influenza Plan.

[1] Long term prophylaxis of these groups should be based on local public health strategy, as determined by coordinated planning between public health and healthcare officials.

Appendix L: Guidelines for Healthcare Facilities Management

These guidelines were created to help health care facilities maximize staffed beds, maximize resources available, and decrease disease transmission within the facility during an influenza pandemic.

Staffing: One of the greatest challenges in a pandemic response is expected to be the management of high patient load in the face of reduced staff. Many hospitals already have high census protocols and emergency preparedness plans that may be adapted to pandemic planning. Specific preventive interventions may reduce staff absenteeism during a pandemic. Health care personnel are among priority groups for antiviral chemoprophylaxis and vaccination. However, available supply of antivirals likely will be far less than the need and the efficacy of chemoprophylaxis may be compromised by antiviral resistance. If available, vaccine is also likely to be in short supply early in a pandemic. Assuming insufficient vaccine initially to protect all hospital staff, health departments and health care organizations should work together to define front-line health care workers who would have priority for vaccination or chemoprophylaxis. Absenteeism may result from illness, the need to care for ill family members, and possibly from fear of exposure and infection. As part of preparedness planning, health care organizations should develop strategies to cope with staffing shortages.

Strategies to increase available staff:

1. Ensure that the facility's time-off policies and procedures adequately consider staffing needs in periods of clinical crisis.
2. Consider or expand hospital-sponsored sick care services for the children of hospital staff to reduce staff absenteeism.
3. Within reasonable limits of clinical competency, consider use of registered nurses and other health care providers serving in administrative positions to provide patient care.
4. Consider appropriate clinical care roles for trainees (such as medical or nursing students), retired health care providers, and community volunteers for some patient care roles and other functions such as patient or specimen transport and for maintaining good patient flow in crowded emergency department settings.
5. When vaccine becomes available, sponsor local immunization programs for all staff members, physicians and their families, and other at-risk members of the community.
6. Preferentially use immunized staff to care for those with suspected or confirmed influenza infection.
7. Generally, health care workers who have respiratory illness should be excluded from work to avoid infection of patients, many of whom are at high risk for severe or complicated disease. In a

pandemic, and faced with critical staff shortages, such restrictions could be relaxed on a case-by-case basis, such that health care workers who have mild respiratory illness could provide care for cohorted influenza patients.

8. In addition to chemoprophylaxis begun before exposure and vaccination, other strategies to decrease the risk that a health care worker will be infected include good infection control and post-exposure chemoprophylaxis. Antiviral treatment using a neuraminidase inhibitor shortly after onset of symptoms can decrease the duration of illness and time missed from work as well as reducing the amount of viral shedding and risk to other staff and patients. Early therapy also is the most efficient approach to antiviral use when supplies are limited.

Bed Availability: Additional beds can be made available for those who require admission for influenza or its complications by decreasing other admissions, implementing more stringent triage, and decreasing the length-of-stay. Hospitals also may be able to add acute care beds in a public health emergency, although staffing those beds may be a limitation.

Strategies to increase the availability of hospital beds:

1. Review policies for scheduling elective procedures and develop guidelines and contingency plans to limit elective admissions and surgery. Decreasing elective utilization of health care facilities during a pandemic will increase bed availability, allow redistribution of staff and equipment, and may decrease the elective patient's exposure to influenza infected persons. Consideration should be given to performing any necessary surgeries in a surgical ambulatory care center to reduce the likelihood of exposure to influenza infected patients in hospital.
2. Consider appointment of a triage officer to manage patient flow in the emergency department, including appropriate patient referral to other clinics within the facility or to local physicians' offices or nontraditional care settings when emergency department care is not required.
3. Review and revise criteria for admission. Consider directing patients referred for admission by their physician to the emergency department where the need for admission can be directly evaluated (by a triage officer) in the context of bed and staff shortages.
4. Review guidelines and policies allowing expeditious transfer of patients between units, especially from critical care units, when indicated.
5. Develop plans and policies to promptly transport discharged patients home or to other facilities. Consider creating a patient discharge holding area or discharge lounge to free up bed space.
6. Ensure that the facility has effective rules for expediting patient discharge during periods of anticipated high demand. These rules might include allocation of a sufficient number of triage

physicians and nurses to the appropriate services and procedures for discharge and transfer of patients to home, a skilled nursing facility, or other facilities.

7. Coordinate with home health care agencies to provide follow-up for persons who are not admitted to the hospital or are discharged earlier than usual.

Equipment/Supplies: Plan for the limited availability and increased need for equipment and supplies such as respirators, gurneys and supply carts within the facility and for potential disruption in the normal delivery of supplies and repair services. Although several thousand ventilators are included in the Strategic National Stockpile (SNS), this quantity is small relative to what the national need may be. Because a pandemic may not affect all areas simultaneously, it may be possible to shift some resources between areas; this may be most feasible if a pandemic wave already has passed through a community and ventilators become available rather than an area that has not yet experienced disease sending its equipment elsewhere.

Consumable resource needs are those specific to an outbreak of infectious respiratory disease, including hand hygiene supplies, gowns, gloves, and surgical and N-95 masks, as well as other supplies associated with routine patient care. Since these types of supplies have no expiration, it would be possible to establish stockpiles (either in individual facilities or regionally). Healthcare facilities should be expected to provide supplies, including masks, to their patients and staff to ensure appropriate infection control within their facility as appropriate based on infection control guidelines and supply availability. Local public health officials may wish to provide assistance to healthcare facilities in the form of supplies or funding based on need to ensure proper infection control within those facilities. It is quite likely during a pandemic availability of essential supplies will be limited. Healthcare providers and facilities are encouraged to procure essential supplies, including respiratory protection for patients and staff, before a pandemic occurs.

In the event of a pandemic, local healthcare facilities will be the primary entity responsible for the care and treatment of ill persons. It is recommended that healthcare facilities maintain a supply of antiviral medications to be used for the treatment of ill persons, as the availability of such medications allows. Current evidence indicates the facility supply should include oseltamivir (Tamiflu); however the facility supply does not necessarily need to be restricted to oseltamivir as other antiviral medications such as zanamivir (Relenza) may be effective against pandemic virus strains. In addition, at this time the antiviral medication available for public health stockpiles does NOT include suspension formulations for pediatric dosing, so healthcare facilities and pharmacies should consider this need. While it is possible that public health stockpiles of antiviral medications may be available, relying solely on public health stockpiles would likely not provide sufficient amounts of antiviral medications and would not be the most efficient means of providing treatment to patients.

Infection Control: Influenza viruses are spread from person-to-person, primarily through inhalation of small particle aerosols and large droplet infection. Influenza can be highly contagious, particularly among persons without pre-existing antibodies against influenza, such as young children during normal influenza seasons and anyone during a pandemic. The typical incubation period of influenza is two days (range one to four days). Viral shedding, and the period during which a person may be infectious to others, generally peaks on the second day of symptoms, but may begin the day before symptoms start, and typically lasts five to seven days in adults. Young children and immunocompromised persons may shed virus and be infectious for three weeks or longer. The amount of virus shed and the length of time of viral shedding may be prolonged during initial infection with a new influenza subtype.

Infection control practices for pandemic influenza are generally the same as for other human influenza viruses and primarily involve the application of standard and droplet precautions (see http://www.cdc.gov/ncidod/dhqp/gl_isolation_ptII.html. for description of infection control precautions). Special guidelines for infection control may need to be in place during pandemic influenza, taking into account the likelihood that a high proportion of the population will be affected and that secondary infections are a major source of morbidity and mortality. Healthcare facilities, in addition to standard, droplet, and contact precautions, should consider the following:

1. Conduct annual staff education about the prevention and control of influenza.
2. Strongly encourage annual vaccination of staff.
3. Healthcare workers and visitors should wear respiratory protection when in close contact (generally defined as within three feet) with the patient. CDC/HHS guidelines recommend N-95 (or higher) respirators should be worn during medical activities that have a high likelihood of generating infectious respiratory aerosols, for which respirators (not surgical masks) offer the most appropriate protection for health care personnel. Use of N-95 respirators is also prudent for health care personnel during other direct patient care activities (e.g., examination, bathing, feeding) and for support staff who may have direct contact with pandemic influenza patients. If N-95 or other types of respirators are not available, surgical masks provide benefit against large-droplet exposure and should be worn for all health care activities involving patients with confirmed or suspected pandemic influenza. Measures should be employed to minimize the number of personnel required to come in contact with suspected or confirmed pandemic influenza patients. Respirator (N-95 mask or higher) use should be in the context of a complete respiratory protection program in accordance with OSHA regulations.
4. Consider separate waiting rooms for patients potentially infected with influenza

5. Patients should be educated about what they can do to decrease transmission of influenza to other patients, health care workers, and visitors. Information on Respiratory Hygiene/Cough Etiquette should be posted and communicated individually to patients hospitalized with respiratory disease.
6. Visitors should be limited as much as possible to reduce the likelihood of transmission of influenza among visitors, patients, and health care workers. The use of family members and volunteers to assist in patient care may be considered with documented policies and education in place.
7. Ideally, patients with suspected or diagnosed influenza should be in a private room. During a pandemic, private rooms are unlikely to be available and containment of infection is likely to be difficult. Consideration should be given to cohorting patients with active confirmed or suspected influenza infection. If for some reason cohorting is not achievable, at least 3 feet spatial separation should be maintained between the infected patient and other patients and visitors. Special air handling and ventilation are generally not necessary. It is recommended that all influenza specific bed management measures should be maintained for at least 7 days after onset of illness or longer if symptoms persist.
8. Limit the movement of patients with suspected or diagnosed influenza to essential purposes only. If a patient must be transported, the patient should wear a surgical mask to decrease the risk of virus transmission to other patients and health care workers.

[d] *The information in this Appendix was adapted from the Draft Pandemic Influenza Preparedness and Response Plan, Department of Health and Human Services, Annex 2: Planning Guidance for Health Care Systems, August 2004. For more detailed information, please reference this document.*

Appendix M: Individual and Family Preparedness*

The United States Department of Health and Human Services (HHS) has developed guidelines to follow in preparation for a pandemic. You can prepare for an influenza pandemic now. You should know both the magnitude of what can happen during a pandemic outbreak and what actions you can take to help lessen the impact of an influenza pandemic on you and your family. This checklist will help you gather the information and resources you may need in case of a flu pandemic.

1. To plan for a pandemic:

- Store a two week supply of water and food. During a pandemic, if you cannot get to a store, or if stores are out of supplies, it will be important for you to have extra supplies on hand. This can be useful in other types of emergencies, such as power outages and disasters.

- Periodically check your regular prescription drugs to ensure a continuous supply in your home.

- Have nonprescription drugs and other health supplies on hand, including pain relievers, stomach remedies, cough and cold medicines, fluids with electrolytes, vitamins, and disposable tissues. You may wish to have a supply of disposable surgical masks on hand to use when caring for ill family members, or for the ill person to wear when around others. These can usually be purchased from pharmacies or home health supply stores.

- Talk with family members and loved ones about how they would be cared for if they got sick, or what will be needed to care for them in your home.

- Volunteer with local groups to prepare and assist with emergency response.

- Get involved in your community as it works to prepare for an influenza pandemic.

2. To limit the spread of germs and prevent infection:

- Teach your children to wash hands frequently with soap and water, and model the current behavior.

- Teach your children to cover coughs and sneezes with tissues, and be sure to model that behavior.

- Teach your children to stay away from others as much as possible if they are sick. Stay home from work and school if sick.

3. Items to have on hand for an extended stay at home:

Examples of food and non-perishables	Examples of medical, health, and emergency supplies
☐ Ready-to-eat canned meats, fish, fruits, vegetables, beans, and soups	☐ Prescribed medical supplies such as glucose and blood-pressure monitoring equipment
☐ Protein or fruit bars	☐ Soap and water, or alcohol-based (60-95%) hand wash
☐ Dry cereal or granola	☐ Medicines for fever, such as acetaminophen or ibuprofen
☐ Peanut butter or nuts	☐ Thermometer
☐ Dried fruit	☐ Anti-diarrheal medication
☐ Crackers	☐ Vitamins
☐ Canned juices	☐ Fluids with electrolytes
☐ Bottled water	☐ Cleansing agent/soap
☐ Canned or jarred baby food and formula	☐ Flashlight
☐ Pet food	☐ Batteries
☐ Other nonperishable foods	☐ Portable radio
	☐ Manual can opener
	☐ Garbage bags
	☐ Tissues, toilet paper, disposable diapers ☐ Consider disposable surgical masks for ill family members to wear, or to wear when caring for ill family members.

*From: *A Guide for Individuals and Families*; http://www.pandemicflu.gov/plan/

4. How to Protect Yourself and Others From Pandemic Influenza

- **Persons who have a flu-like illness must stay home and limit contact with others as much as possible.** A flu-like illness may consist of fever, chills, cough, sore throat, runny nose, headache, and muscle aches. All or only a few of the symptoms may be present. The affected person should stay home beginning at the first signs of illness and for 5 days after illness begins, or until recovered, whichever is later. If it is felt the person needs medical attention, they should call ahead to their healthcare provider or healthcare facility for instructions before leaving.
- **Avoid being around others who are ill as much as possible.** If your occupation requires you to be around ill people, your place of employment should have infection control measures in place to help lessen your chances of becoming ill.
- **Avoid large gatherings of people.** These may include but are not limited to business conferences, social organizations, sporting events, public meetings, and celebrations.

- **Everyone must practice good hand and respiratory hygiene.** This is important for both ill and well people. Good hygiene consists of washing hands frequently (soap and water or alcohol based hand sanitizers), especially after touching items that may be contaminated with respiratory secretions; covering the nose and mouth when coughing or sneezing; using tissues to contain respiratory secretions, and disposing of tissues properly.
- **If a household member is ill with the flu there are steps you can take to decrease the chance other household members will get sick.** Everyone in the household must practice good respiratory hygiene (see above); physically separate the ill person from non-ill persons as much as possible; limit the number of people providing care to the ill person, or having other close contact; if possible, the primary caregiver should be someone who does not have an underlying medical condition that places them at high risk for severe illness; if you have them available, consideration should be given to having the ill person wear a surgical mask when around others, or having caregivers wear a surgical mask when in close contact with the ill person. Surgical masks are usually available for purchase at pharmacies or home health supply stores, although supplies will be quite limited during a pandemic. Wearing a surgical mask must not take the place of good respiratory hygiene.

In addition to these general precautions, public health officials may announce additional control measures such as cancelling events, closing large gatherings of people, or requesting that well persons in positions that are not critical to the public's health, safety, or general well-being stay home. **It is important for your well being and the well being of others that you listen for and heed public health messages.**

Appendix N: School Preparedness*

The United States Department of Health and Human Services (HHS), the Centers for Disease Control and Prevention (CDC), and the Department of Education have prepared checklists for schools to refer to in developing and/or preparing for a pandemic.

Child Care and Preschool Pandemic Influenza Planning Checklist

1. Planning and coordination:

Tasks	Not Started	In Progress	Completed
Form a committee of staff members and parents to produce a plan for dealing with a flu pandemic. Include members from all different groups your program serves. Include parents who do not speak English who can help contact other non-English speakers in the community. Staff of very small programs might consider joining together with other similar programs for planning.	☐	☐	☐
Assign one person to identify reliable sources of information and watch for public health warnings about flu, school closings, and other actions taken to prevent the spread of flu.	☐	☐	☐
Learn who in your area has legal authority to close child care programs if there is a flu emergency.	☐	☐	☐
Learn whether the local/state health departments and agencies that regulate child care have plans. Be sure your flu plan is in line with their plans. Tell them if you can help support your community's plan.	☐	☐	☐
Identify all the ways a flu pandemic might affect your program and develop a plan of action. (For example, you might have problems with food service, transportation, or staffing.)	☐	☐	☐
Encourage parents to have a "Plan B" for finding care for their children if the program is closed during a flu pandemic. Give them ideas about where they might seek help based on your knowledge of the local child care community.	☐	☐	☐
Work with those in charge of your community's plan to find other sources of meals for low-income children who receive subsidized meals while in your care. (For example, locate food pantries and meals on wheels.)	☐	☐	☐
Learn about services in your area that can help your staff, children, and their families deal with	☐	☐	☐

stress and other problems caused by a flu pandemic.			
Stage a drill to test your plan and then improve it as needed. Repeat the drill from time to time. Consider volunteering to help in tests of community plans.	☐	☐	☐
Talk to other child care and preschool programs in your area to share information that could make your plan better. Discuss ways programs could work together to produce a stronger plan and pool resources.	☐	☐	☐

2. Student learning and program operations:

Tasks	Not Started	In Progress	Completed
Plan how you would deal with program closings, staff absences, and gaps in student learning that could occur during a flu pandemic.	☐	☐	☐
Plan ways to help families continue their child's learning if your child care program or preschool is closed. (For example, give parents things they can teach at home. Tell them how to find ideas on the internet. Talk with child care resource referral agencies or other groups that could help parents continue their children's learning at home.)	☐	☐	☐
Plan ways to continue basic functions if your program is closed. (For example, continue meeting payroll and keeping in touch with staff and student's families.)	☐	☐	☐

3. Infection control policies and actions:

Tasks	Not Started	In Progress	Completed
Give special attention to teaching staff, children, and their parents on how to limit the spread of infection. (For example, use good hand washing; cover the mouth when coughing or sneezing; clean toys frequently.) Programs should already be teaching these things to build habits that protect children from disease.	☐	☐	☐
Keep a good supply of things you will need to help control the spread of infection. (For example, keep on hand plenty of soap, paper towels, and tissues.) Store the supplies in easy-to-find places.	☐	☐	☐

Tell families that experts recommend yearly flu shots for all children 6 months to 5 years old and for anyone who cares of children in that age range.	☐	☐	☐
Encourage staff to get flu shots each year.	☐	☐	☐
Tell parents to let your program know if their children are sick. Keep accurate records of when children or staff are absent. Include a record of the kind of illness that caused the absence (e.g., diarrhea/vomiting, coughing/breathing problems, rash, or other).	☐	☐	☐
Teach staff a standard set of steps for checking children and adults each day as they arrive to see if they are sick. Make it clear that any child or adult who is ill will not be admitted.	☐	☐	☐
Have a plan for keeping children who become sick at your program away from other children until the family arrives, such as a fixed place for a sick room.	☐	☐	☐
Require staff members to stay home if they think they might be sick. If they become sick while at the program, require them to go home and stay home. Give staff paid sick leave so they can stay home without losing wages.	☐	☐	☐
Require ill staff and students to stay at home until their flu symptoms are gone and they feel ready to come back to work.	☐	☐	☐

4. Communications planning:

Tasks	Not Started	In Progress	Completed
Have a plan for keeping in touch with staff members and students' families. Include several different methods of contacting them. (For example, you might use hotlines, telephone trees, text messaging, special Websites, local radio and/or TV stations.) Test the contact methods often to be sure they work.	☐	☐	☐
Make sure staff and families have seen and understand your flu pandemic plan. Explain why you need to have a plan. Give them a chance to ask questions.	☐	☐	☐
Give staff and students' families reliable information on the issues listed below in their languages and at their reading levels. ▪ How to help control the spread of flu by	☐	☐	☐

hand washing/cleansing and covering the mouth when coughing or sneezing. (See www.cdc.gov/flu/school/.) ▪ How to recognize a person that may have the flu, and what to do if they think they have the flu. (See www.pandemicflu.gov.) ▪ How to care for ill family members. (See www.hhs.gov/pandemicflu/plan/sup5.html#box4.) ▪ How to develop a family plan for dealing with a flu pandemic.(See www.pandemicflu.gov/planguide/.)			

School District (K-12) Pandemic Influenza Planning Checklist

1. Planning and coordination:

Tasks	Not Started	In Progress	Completed
Identify the authority responsible for declaring a public health emergency at the state and local levels and for officially activating the district's pandemic influenza response plan.	☐	☐	☐
Identify for all stakeholders the legal authorities responsible for executing the community operational plan, especially those authorities responsible for case identification, isolation, quarantine, movement restriction, healthcare services, emergency care, and mutual aid.	☐	☐	☐
As part of the district's crisis management plan, address pandemic influenza preparedness, involving all relevant stakeholders in the district (e.g., lead emergency response agency, district administrators, local public health representatives, school health and mental health professionals, teachers, food services director, and parent representatives). This committee is accountable for articulating strategic priorities and overseeing the development of the district's operational pandemic plan.	☐	☐	☐
Work with local and/or state health departments and other community partners to establish organizational structures, such as the Incident Command System, to manage the execution of the district's pandemic flu plan. An Incident Command System, or ICS, is a standardized organization structure that establishes a line of authority and common terminology and procedures to be followed in response to an incident. Ensure compatibility between the district's established ICS and the local/state health department's and state education department's ICS.	☐	☐	☐
Delineate accountability and responsibility as well as resources for key stakeholders engaged in planning and executing specific components of the operational plan. Assure that the plan includes timelines, deliverables, and performance measures.	☐	☐	☐
Work with your local and/or state health department and state education agencies to coordinate with their pandemic plans. Assure that pandemic planning is coordinated with the	☐	☐	☐

community's pandemic plan as well as the state department of education's plan.			
Test the linkages between the district's Incident Command System and the local/state health department's and state education department's Incident Command System.	☐	☐	☐
Contribute to the local health department's operational plan for surge capacity of healthcare and other services to meet the needs of the community (e.g., schools designated as contingency hospitals, schools feeding vulnerable populations, community utilizing the school district's healthcare and mental health staff). In an affected community, at least two pandemic disease waves (about 6-8 weeks each) are likely over several months.	☐	☐	☐
Incorporate into the pandemic influenza plan the requirements of students with special needs (e.g., low income students who rely on the school food service for daily meals), those in special facilities (e.g., juvenile justice facilities) as well as those who do not speak English as their first language.	☐	☐	☐
Participate in exercises of the community's pandemic plan.	☐	☐	☐
Work with the local health department to address provision of psychosocial support services for the staff, students and their families during and after a pandemic.	☐	☐	☐
Consider developing in concert with the local health department a surveillance system that would alert the local health department to a substantial increase in absenteeism among students.	☐	☐	☐
Implement an exercise/drill to test your pandemic plan and revise it periodically	☐	☐	☐
Share what you have learned from developing your preparedness and response plan with other school districts as well as private schools within the community to improve community response efforts.	☐	☐	☐

2. Continuity of student learning and core operations:

Tasks	Not Started	In Progress	Completed
Develop scenarios describing the potential impact of a pandemic on student learning (e.g., student and staff absences), school closings, and extracurricular activities based on having various levels of illness among students and staff.	☐	☐	☐
Develop alternative procedures to assure continuity of instruction (e.g., web-based distance instruction, telephone trees, mailed lessons and assignments, instruction via local radio or television stations) in the event of district school closures.	☐	☐	☐
Develop a continuity of operations plan for essential central office functions including payroll and ongoing communication with students and parents.	☐	☐	☐

3. Infection control policies and procedures:

Tasks	Not Started	In Progress	Completed
Work with the local health department to implement effective infection prevention policies and procedures that help limit the spread of influenza at schools in the district (e.g. promotion of hand hygiene, cough/sneeze etiquette). Make good hygiene a habit now in order to help protect children from many infectious diseases such as flu.	☐	☐	☐
Provide sufficient and accessible infection prevention supplies (e.g., soap, alcohol-based/waterless hand hygiene products, tissues and receptacles for their disposal).	☐	☐	☐
Establish policies and procedures for students and staff sick leave absences unique to a pandemic influenza (e.g., non-punitive, liberal leave).	☐	☐	☐
Establish sick leave policies for staff and students suspected to be ill or who become ill at school. Staff and students with known or suspected pandemic influenza should not remain at school and should return only after their symptoms resolve and they are physically ready to return to school.	☐	☐	☐
Establish policies for transporting ill students.	☐	☐	☐
Assure that the local school district's pandemic plan for school-based health facilities conforms to	☐	☐	☐

those recommended for health care settings (Refer to www.hhs.gov/pandemicflu/plan/sup4.html).			

4. Communications planning:

Tasks	Not Started	In Progress	Completed
Assess readiness to meet communication needs in preparation for an influenza pandemic, including regular review, testing, and updating of communication plans.	☐	☐	☐
Develop a dissemination plan for communication with staff, students, and families, including lead spokespersons and links to other communication networks.	☐	☐	☐
Ensure language, culture and reading level appropriateness in communications by including community leaders representing different language and/or ethnic groups on the planning committee, asking for their participation both in document planning and the dissemination of public health messages within their communities.	☐	☐	☐
Develop and test platforms (e.g., hotlines, telephone trees, dedicated websites, and local radio or TV stations) for communicating pandemic status and actions to school district staff, students, and families.	☐	☐	☐
Develop and maintain up-to-date communications contacts of key public health and education stakeholders and use the network to provide regular updates as the influenza pandemic unfolds.	☐	☐	☐
Assure the provision of redundant communication systems/channels that allow for the expedited transmission and receipt of information.	☐	☐	☐
Advise district staff, students and families where to find up-to-date and reliable pandemic information from federal, state and local public health sources.	☐	☐	☐
Disseminate information about the local school district's pandemic influenza preparedness and response plan (e.g., continuity of instruction, community containment measures).	☐	☐	☐
Disseminate information from public health sources covering routine infection control (e.g.,	☐	☐	☐

hand hygiene, cough/sneeze etiquette), pandemic influenza fundamentals (e.g., signs and symptoms of influenza, modes of transmission) as well as personal and family protection and response strategies (e.g., guidance for the at-home care of ill students and family members).			
Anticipate the potential fear and anxiety of staff, students, and families as a result of rumors and misinformation and plan communications accordingly.	☐	☐	☐

Colleges and Universities Pandemic Influenza Planning Checklist

1. Planning and coordination:

Tasks	Not Started	In Progress	Completed
Identify a pandemic coordinator and response team (including campus health services and mental health staff, student housing personnel, security, communications staff, physical plant staff, food services director, academic staff and student representatives) with defined roles and responsibilities for preparedness, response, and recovery planning.	☐	☐	☐
Delineate accountability and responsibility as well as resources for key stakeholders engaged in planning and executing specific components of the operational plan. Assure that the plan includes timelines, deliverables, and performance measures.	☐	☐	☐
Incorporate into the pandemic plan scenarios that address college/university functioning based upon having various levels of illness in students and employees and different types of community containment interventions. Plan for different outbreak scenarios including variations in severity of illness, mode of transmission, and rates of infection in the community. Issues to consider include: ▪ cancellation of classes, sporting events and/or other public events; ▪ closure of campus, student housing, and/or public transportation ▪ assessment of the suitability of student housing for quarantine of exposed and/or ill students (See www.hhs.gov/pandemicflu/plan/sup8.html) ▪ contingency plans for students who depend on student housing and food services (e.g., international students or students who live too far away to travel home) ▪ contingency plans for maintaining research laboratories, particularly those using animals ▪ stockpiling non-perishable food and equipment that may be needed in the case of an influenza pandemic	☐	☐	☐

Work with state and local public health and other local authorities to identify legal authority, decision makers, trigger points, and thresholds to institute community containment measures such as closing (and re-opening) the college/university. Identify and review the college/university's legal responsibilities and authorities for executing infection control measures, including case identification, reporting information about ill students and employees, isolation, movement restriction, and provision of healthcare on campus.	☐	☐	☐
Ensure that pandemic influenza planning is consistent with any existing college/university emergency operations plan, and is coordinated with the pandemic plan of the community and of the state higher education agency.	☐	☐	☐
Work with the local health department to discuss an operational plan for surge capacity for healthcare and other mental health and social services to meet the needs of the college/university and community during and after a pandemic.	☐	☐	☐
Establish an emergency communication plan and revise regularly. This plan should identify key contacts with local and state public health officials as well as the state's higher education officials (including back-ups) and the chain of communications, including alternate mechanisms.	☐	☐	☐
Test the linkages between the college/university's Incident Command System and the Incident Command Systems of the local and/or state health department and the state's higher education agency.	☐	☐	☐
Implement an exercise/drill to test your plan, and revise it regularly.	☐	☐	☐
Participate in exercises of the community's pandemic plan.	☐	☐	☐
Develop a recovery plan to deal with consequences of the pandemic (e.g., loss of students, loss of staff, financial and operational disruption).	☐	☐	☐
Share what you have learned from developing your preparedness and response plan with other colleges/universities to improve community response efforts.	☐	☐	☐

2. Continuity of student learning and operations:

Tasks	Not Started	In Progress	Completed
Develop and disseminate alternative procedures to assure continuity of instruction (e.g., web-based distance instruction, telephone trees, mailed lessons and assignments, instruction via local radio or television stations) in the event of college/university closures.	☐	☐	☐
Develop a continuity of operations plan for maintaining the essential operations of the college/university including payroll; ongoing communication with employees, students and families; security; maintenance; as well as housekeeping and food service for student housing.	☐	☐	☐

3. Infection control policies and procedures:

Tasks	Not Started	In Progress	Completed
Implement infection control policies and procedures that help limit the spread of influenza on campus (e.g. promotion of hand hygiene, cough/sneeze etiquette). (See Infection Control www.cdc.gov/flu/pandemic/healthprofessional.htm). Make good hygiene a habit now in order to help protect employees and students from many infectious diseases such as influenza. Encourage students and staff to get annual influenza vaccine (www.cdc.gov/flu/protect/preventing.htm).	☐	☐	☐
Procure, store and provide sufficient and accessible infection prevention supplies (e.g., soap, alcohol-based hand hygiene products, tissues and receptacles for their disposal).	☐	☐	☐
Establish policies for employee and student sick leave absences unique to pandemic influenza (e.g., non-punitive, liberal leave).	☐	☐	☐
Establish sick leave policies for employees and students suspected to be ill or who become ill on campus. Employees and students with known or suspected pandemic influenza should not remain on campus and should return only after their symptoms resolve and they are physically ready to return to campus.	☐	☐	☐
Establish a pandemic plan for campus-based healthcare facilities that addresses issues unique to healthcare settings (See www.cdc.gov/flu/pandemic/healthprofessional.htm	☐	☐	☐

). Ensure health services and clinics have identified critical supplies needed to support a surge in demand and take steps to have those supplies on hand.			
Adopt CDC travel recommendations (www.cdc.gov/travel/) during an influenza pandemic and be able to support voluntary and mandatory movement restrictions. Recommendations may include restricting travel to and from affected domestic and international areas, recalling nonessential employees working in or near an affected area when an outbreak begins, and distributing health information to persons who are returning from affected areas.	☐	☐	☐

4. Communications planning:

Tasks	Not Started	In Progress	Completed
Assess readiness to meet communications needs in preparation for an influenza pandemic, including regular review, testing, and updating of communications plans that link with public health authorities and other key stakeholders (See www.hhs.gov/pandemicflu/plan/sup10.html).	☐	☐	☐
Develop a dissemination plan for communication with employees, students, and families, including lead spokespersons and links to other communication networks. Ensure language, culture and reading level appropriateness in communications.	☐	☐	☐
Develop and test platforms (e.g., hotlines, telephone trees, dedicated websites, local radio or television) for communicating college/university response and actions to employees, students, and families.	☐	☐	☐
Assure the provision of redundant communication systems/channels that allow for the expedited transmission and receipt of information.	☐	☐	☐
Advise employees and students where to find up-to-date and reliable pandemic information from federal, state and local public health sources.	☐	☐	☐
Disseminate information about the college/university's pandemic preparedness and response plan. This should include the potential impact of a pandemic on student housing closure, and the contingency plans for students who depend on student housing and campus food service,	☐	☐	☐

including how student safety will be maintained for those who remain in student housing.			
Disseminate information from public health sources covering routine infection control (e.g., hand hygiene, coughing /sneezing etiquette), pandemic influenza fundamentals (e.g., signs and symptoms of influenza, modes of transmission), personal and family protection and response strategies (including the HHS Pandemic Influenza Planning Guide for Individuals and Families at www.pandemicflu.gov/plan/tab3.html), and the at-home care of ill students or employees and their family members.	☐	☐	☐
Anticipate and plan communications to address the potential fear and anxiety of employees, students and families that may result from rumors or misinformation.	☐	☐	☐

*From: *Schools Planning*; http://www.pandemicflu.gov/plan/

Appendix O: Business Preparedness*

In the event of pandemic influenza, businesses will play a key role in protecting employees' health and safety as well as limiting the negative impact to the economy and society. Planning for pandemic influenza is critical. Companies that provide critical infrastructure services, such as power and telecommunications, also have a special responsibility to plan for continued operation in a crisis and should plan accordingly. As with any catastrophe, having a contingency plan is essential.

The United States Department of Health and Human Services (HHS) and the Centers for Disease Control and Prevention (CDC) have developed guidelines, including a checklist, to assist businesses in planning for a pandemic outbreak as well as for other comparable catastrophes.

1. Plan for the impact of a pandemic on your business:

Tasks	Not Started	In Progress	Completed
Identify a pandemic coordinator and/or team with defined roles and responsibilities for preparedness and response planning. The planning process should include input from labor representatives.	☐	☐	☐
Identify essential employees and other critical inputs (e.g. raw materials, suppliers, sub-contractor services/ products, and logistics) required to maintain business operations by location and function during a pandemic.	☐	☐	☐
Train and prepare ancillary workforce (e.g. contractors, employees in other job titles/descriptions, retirees).	☐	☐	☐
Develop and plan for scenarios likely to result in an increase or decrease in demand for your products and/or services during a pandemic (e.g. effect of restriction on mass gatherings, need for hygiene supplies).	☐	☐	☐
Determine potential impact of a pandemic on company business financials using multiple possible scenarios that affect different product lines and/or production sites.	☐	☐	☐
Determine potential impact of a pandemic on business-related domestic and international travel (e.g. quarantines, border closures).	☐	☐	☐
Find up-to-date, reliable pandemic information from community public health, emergency management, and other sources and make sustainable links.	☐	☐	☐

Establish an emergency communications plan and revise periodically. This plan includes identification of key contacts (with back-ups), chain of communications (including suppliers and customers), and processes for tracking and communicating business and employee status.	☐	☐	☐
Implement an exercise/drill to test your plan, and revise periodically.	☐	☐	☐

2. Plan for the impact of a pandemic on your employees and customers:

Tasks	Not Started	In Progress	Completed
Forecast and allow for employee absences during a pandemic due to factors such as personal illness, family member illness, community containment measures and quarantines, school and/or business closures, and public transportation closures.	☐	☐	☐
Implement guidelines to modify the frequency and type of face-to-face contact (e.g. hand-shaking, seating in meetings, office layout, shared workstations) among employees and between employees and customers (refer to CDC recommendations).	☐	☐	☐
Encourage and track annual influenza vaccination for employees.			
Evaluate employee access to and availability of healthcare services during a pandemic, and improve services as needed.			
Evaluate employee access to and availability of mental health and social services during a pandemic, including corporate, community, and faith-based resources, and improve services as needed.			
Identify employees and key customers with special needs, and incorporate the requirements of such persons into your preparedness plan.			

3. Establish policies to be implemented during a pandemic:

Tasks	Not Started	In Progress	Completed
Establish policies for employee compensation and sick-leave absences unique to a pandemic (e.g. non-punitive, liberal leave), including policies on when a previously ill person is no longer infectious and can return to work after illness.	☐	☐	☐
Establish policies for flexible worksite (e.g. telecommuting) and flexible work hours (e.g. staggered shifts).	☐	☐	☐

Establish policies for preventing influenza spread at the worksite (e.g. promoting respiratory hygiene/ cough etiquette, and prompt exclusion of people with influenza symptoms).	☐	☐	☐
Establish policies for employees who have been exposed to pandemic influenza, are suspected to be ill, or become ill at the worksite (e.g. infection control response, immediate mandatory sick leave).	☐	☐	☐
Establish policies for restricting travel to affected geographic areas (consider both domestic and international sites), evacuating employees working in or near an affected area when an outbreak begins, and guidance for employees returning from affected areas (refer to CDC travel recommendations).	☐	☐	☐
Set up authorities, triggers, and procedures for activating and terminating the company's response plan, altering business operations (e.g. shutting down operations in affected areas), and transferring business knowledge to key employees.	☐	☐	☐

4. Allocate resources to protect your employees and customers during a pandemic:

Tasks	Not Started	In Progress	Completed
Provide sufficient and accessible infection control supplies (e.g. hand-hygiene products, tissues and receptacles for their disposal) in all business locations.	☐	☐	☐
Enhance communications and information technology infrastructures as needed to support employee telecommuting and remote customer access.	☐	☐	☐
Ensure availability of medical consultation and advice for emergency response.	☐	☐	☐

5. Allocate resources to protect your employees and customers during a pandemic:

Tasks	Not Started	In Progress	Completed
Develop and disseminate programs and materials covering pandemic fundamentals (e.g. signs and symptoms of influenza, modes of transmission), personal and family protection and response strategies (e.g. hand hygiene, coughing/sneezing etiquette, contingency plans).	☐	☐	☐
Anticipate employee fear and anxiety, rumors and misinformation and plan communications accordingly.	☐	☐	☐

Ensure that communications are culturally and linguistically appropriate.	☐	☐	☐
Disseminate information to employees about your pandemic preparedness and response plan.	☐	☐	☐
Provide information for the at-home care of ill employees and family members.	☐	☐	☐
Develop platforms (e.g. hotlines, dedicated websites) for communicating pandemic status and actions to employees, vendors, suppliers, and customers inside and outside the worksite in a consistent and timely way, including redundancies in the emergency contact system.	☐	☐	☐
Identify community sources for timely and accurate pandemic information (domestic and international) and resources for obtaining counter-measures (e.g. vaccines and antivirals).	☐	☐	☐

6. Coordinate with external organizations and help your community:

Tasks	Not Started	In Progress	Completed
Collaborate with insurers, health plans, and major local healthcare facilities to share your pandemic plans and understand their capabilities and plans.	☐	☐	☐
Collaborate with federal, state, and local public health agencies and/or emergency responders to participate in their planning processes, share your pandemic plans, and understand their capabilities and plans.	☐	☐	☐
Communicate with local and/or state public health agencies and/or emergency responders about the assets and/or services your business could contribute to the community.	☐	☐	☐
Share best practices with other businesses in your communities, chambers of commerce, and associations to improve community response efforts.	☐	☐	☐

*From: *Business Planning;* http://www.pandemicflu.gov/plan/